



# MANUFACTURERS' RECORD

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## Manufacturers' Record.

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BALTIMORE, APRIL 5, 1906.

### A CAMPAIGN ISSUE?

According to a dispatch from Washington to the Providence Journal, both the political parties are becoming a little anxious because nothing has yet developed that can be safely relied upon for political capital in the coming congressional campaign, both Republicans and Democrats being divided on almost every important question that has recently been considered in Congress. In such an emergency it may, perhaps, be suggested that several million persons not members of Congress are united as to the necessity of a campaign to emphasize one issue, respect for the spirit as well as the letter of the Constitution and the laws of the country. Both Republicans and Democrats seem alike divided on that question, and perhaps both of their parties, now bearing unhistorical and undescriptive names, might be lost for good in the bringing to the front the issue of respect for law and propriety and safety of procedure in administering government. There is material by the wholesale for such a campaign, and, without reflecting for a moment upon the patriotic impulse or sincere purpose of anybody involved, a start might be made in consideration of the rather unique spectacle of the White House as the place and five United States Senators, one Attorney-General and two Interstate Commerce Commissioners as the persons for the handling of matters designated by the Constitution as within the special province of the Congress of the United States.

Mr. William Scandrett, Adel Lumber Co., Adel, Ga., writes to the MANUFACTURERS' RECORD as follows:

The Adel Lumber Co., of which I am secre-

tary-treasurer, has been a subscriber to the MANUFACTURERS' RECORD since its organization, and I dare say will remain a subscriber as long as it exists, as we find your paper invaluable to us in the prosecution of our business—that of manufacturing and selling yellow-pine lumber.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 88, 89 and 90.

### DENATURED ALCOHOL.

A favorable report having been authorized upon the bill before Congress for the removal of the internal revenue duty from denatured alcohol for use in the arts and sciences, it is hoped that no time will be lost in making the bill a law in its simple form. Special interests of one kind or another are said to oppose it and are suspected of a desire to attempt through amendment to render it ineffective. But so widespread is the demand for the act and so far-reaching for good are the possibilities in alcohol as fuel for power, light and heating purposes, that it is difficult to perceive how any interest could be affected but beneficially by the provision sought in the measure. In its last analysis the question is not one of a displacement of materials now used in the arts, it is not one of competition among fuels, but it is one of a distinct and much-needed addition to the total fuel supply of the country, an addition not supplanting other fuels, but supplementing them in ways that will ultimately be to the benefit of all. Hundreds of thousands of farmers are waiting for the law permitting the use of alcohol free of revenue duty, for it means a tremendous widening of the markets for their products and greater economy in farm operations. Thousands of manufacturers are likewise waiting for the to be expected expansion of their undertakings. In the betterment of these two important classes all citizens of the country will be bettered.

### ELECTRIC RAILWAYS IN THE SOUTH.

Within the last fortnight two things were done which speak eloquently of the demand for high-speed electric railways in the South. One was the letting of a contract to build the projected line from Baltimore to Washington, and the other was the beginning of construction on the line from Houston to Galveston. Considering these enterprises in connection with the Richmond & Chesapeake Bay Electric Railway, now building in Virginia, and other proposed interurban railroad plans in the Southern States, a large future for such transportation undertakings in this section seems to be fast approaching.

Both the Baltimore and Washington and the Houston and Galveston plans provide for railways which will afford fast passenger service by means of big and powerful motor cars, and it is probable that the former will be one of the

most notable electric roads in this country. The men who are at the head of the company are experienced in such work, having built and operated the line between Fort Worth and Dallas, which they disposed of not so long ago to Stone & Webster of Boston. The distance from Baltimore to Washington is 33½ miles, not including the distance within the city limits, and this is just about the same length as the Texas line which Messrs. Bishop and Sherwin formerly controlled. But their new field of effort promises to yield great returns. A heavy travel is constant between the Maryland metropolis and the capital of the United States, and although there are two double-tracked steam lines connecting these cities, there is also room for a double-tracked electric road, for traffic is growing fast, and, moreover, the electric cars will invite and secure a class of travelers who will ride for pleasure, but who do not use either of the steam roads unless they are obliged to do so by social or business requirements.

It is probable that extensive exploitation of the country lying between the two cities will follow the operation of the Baltimore and Washington line. Toward the Washington end of the route there are already many suburban enterprises in the way of cottage and town-site developments. An electric road now reaches out from the capital as far as Laurel, Md., nearly halfway to Baltimore. This is controlled by the interurban company, although it is not, according to announced plans, to be used as a portion of the through route, and the same corporation also owns the steam road running from Annapolis Junction, on the Baltimore & Ohio, via Odenton, on the Pennsylvania's line, to Annapolis, but this will be taken into the electric plan and converted for the operation of trolley cars. Since the erection of the new Naval Academy buildings was started at Annapolis the old city has experienced a substantial boom in real estate, and suburbs have developed extensively. It is anticipated that with the coming of an electric railway the natural advantages of Annapolis and the adjacent territory, particularly along the Severn river, will be more than ever appreciated for development, with the result that a large passenger business will be created. There has also been not a little talk of converting the Baltimore & Annapolis Short Line from a steam to an electric railway, and it will be no surprise if this is done. It would, furthermore, not be astonishing if the Baltimore & Ohio places an electric-car service on its road between Baltimore and Washington. This portion of its system has practically no freight traffic to handle other than that for local stations, as the great bulk of B. & O. freight is sent east and west over the old main line. Besides, the company has a large electric-power station in Baltimore, which is capable of expansion if need be to meet the requirements of an electric-railway service.

The Houston and Galveston road will be 12 or 15 miles longer than the Baltimore and Washington line, and it is expected to considerably enhance the travel between those two cities, especially in summer, when the people of Houston and points lying between it and the coast wish frequently to visit Galveston to get a whiff of the cooling breezes from the Gulf of Mexico. Real-estate development along the railroad is also regarded as assured.

While it might be unnecessary to refer to more than the great trolley lines of the middle West to illustrate the possibilities of electric railways, the fact that the Pennsylvania, the New York Central and the New York, New Haven & Hartford railroad companies have taken up electric motive power on a large scale should not be overlooked in any consideration of this fast, clean and comfortable means of handling passenger traffic. The New York Central will operate its suburban trains to a distance of 34 miles from Manhattan by means of electric locomotives, the Pennsylvania is already operating some lines on Long Island with electric motor cars and is now converting the West Jersey & Seashore road between Philadelphia and Atlantic City, 64 miles, from steam to trolley service, while the New York, New Haven & Hartford has for many years operated several of its branches by means of electricity.

The adoption of electric power by these big corporations for moving part of their passenger business is a warrant of its thorough practicability for heavy work, and it is therefore not surprising that the South is witnessing more and more electric railway development within its borders. The Charleston & Summerville Railway, to be 22 miles long, has just been assured in South Carolina, and in every one of the other Southern States companies have lately organized to build electric roads, while some of them have actually begun construction. No doubt during the next few years several hundred miles will be added to the total of electric lines in the South.

William A. Garland, real estate and investments, Hendersonville, N. C., in a letter to the MANUFACTURERS' RECORD says:

When we consider the disadvantages under which the South has labored, the figures which you give this week of the South's wonderful growth in wealth is marvelous. Forty years ago she might well be compared to a wealthy and prosperous old man, who had met with one misfortune after another in quick succession, until he had lost all of his property and all of his family who were able to produce. In the evening of his life he awakes to find himself almost penniless, homeless, and with a large family of small children and girls on his hands to be provided for. He is forced to begin life over again in his old age without any working capital and with a big load to carry. The most of our young men who were able to produce values had fallen in the war, and it was only those who were too young or old to go and the women and children who were left. The property, the stock in trade, had all been destroyed. We had our lands, but they were all overgrown with weeds and briars, and no labor to clean or culti-

vate them. We had to do the best we could until we could grow another generation of laborers to do our work. Those who have seen a once prosperous and wealthy man fall in business in his old age and try to regain his fortune again have a very good example of what we have had to do in the South.

#### AN OLD IMMIGRATION SCHEME.

The inspiration of last spring's fizzle at Washington, D. C., known as the Southern Industrial Parliament, comes close to the surface again in efforts to interest the South through its commercial and industrial bodies in a bill before Congress, this time fathered by Senator Dillingham. It is practically the old measure which has been before the people for some time, looking to the control by the general government of the distribution of immigrants arriving in this country. Its features include the establishment of another division in the Department of Commerce and Labor as a clearing-house of information obtained from officials of States and Territories and from other sources about the characteristics of each State, the opportunities there for skilled and unskilled labor, the prevailing rates of wages, cost of labor and other facts to be published in various languages and distributed. The bill provides for the appointment and maintenance by each State and at its own expense of an agent to represent it at any of the immigrant stations of the country, the agent to be subject to regulations prescribed by the commissioner-general of immigration and to be given facilities to work among aliens duly admitted.

As has been urged before, such a measure is to be considered only with the view to the interests of desirable immigrants and of the communities in which they may cast their lot, even if it be seriously considered at all. For it contains the vital fault of conferring upon the general government too much of the power that should be left with individual States—a power which, under wrong auspices, may be exerted to the lasting injury of one part of the country or the other. The general government is properly charged with determining what kind of would-be immigrants shall not be admitted to the country. But there are many thoughtful students of the immigration problem who are convinced that even that power, limited as it is, has been twisted to the detriment of the country generally in preventing the coming to the country of thousands of immigrants who would be perfectly desirable except to one narrow class or another, or which, under evasion, has wrought injustice. With greater power given to the general government in this particular the menace of ill would be greater, especially as in divers and devious channels, diplomatic, political and philanthropic, so-called, the authorities of more than one foreign country are directly or indirectly favoring, if not actively promoting, the movement to this country of immigrants, some of whom have been described as "coming to this country not because they want to, but because they have to," and as it is much easier to carry through a scheme of any kind through a central and dominating authority than through 45 or 50 authorities given time to ponder upon specious advances or to counteract and influence one another for the prevention of irreparable mistakes.

The general government has its proper part to play in immigration. It alone can prevent the influx to the country of the undesirable, that is, the criminal, the diseased and the permanently defective or pauperized. But it

should not be the mighty medium for checking the incoming of willing workers because objection against them is raised upon narrow, bigoted or selfish impulses of race, religion or economics. The power of the general government could be well exerted through diplomatic channels and through the machinery of its existing immigration bureau in suppressing the undue ambitions of certain foreign authorities to dump their undesirables upon the country. But with the exceptions cited the general government will do well to keep its hands off of immigration and be content to throw no obstacles in the way of separate State authorities in the work which some of them are already doing quite successfully, of inducing, through their own agencies or by assisting organizations and individuals, for the attraction of thrifty and industrial settlers and workers to their own borders. State authorities are not quite ready to confer upon the general government the power, if it chooses to exert it, to turn one class of immigrants to this part of the country or to divert another class from that part, or to become a conscious or unwitting agency for the solutions of the social or other problems of other nations, or for the furtherance of special schemes in which the real advantages of the people of the United States are held to be an inconsequential element. The possibility of such an outcome lies in the measure promoted for the past two or three years to give the general government control of the distribution of immigrants.

#### CALLING THE YOUNG MEN.

According to the *Courier-Journal* of Louisville, Ky., the sewer commission of that city is canvassing the country for a suitable engineer to take charge of the construction of the general sewer system, and it has had difficulty in finding men of the right ability and character who are free to accept the place at its \$5000 a year salary. The demands upon first-class engineers of all kinds, and especially those skilled in municipal improvements, have probably never been greater than they are at present, and revolutions in processes and in materials have been so great that the supply of acceptable engineers is not always equal to the emergency. Right here is enforcement of the contention that Southern boys have great opportunities before them in technical lines, and that the South is throwing away wealth in not being liberal in making prompt provision for the training of its boys to the great tasks before them.

#### THE SOUTHERN EXPOSITION.

Nearly \$700,000 of the \$1,000,000 sought as a send-off for the 1910 Southern exposition at Atlanta is in sight. The fund of \$1,000,000 was divided by the originators into two parts of \$500,000 each, one to be given by the city of Atlanta and various State and municipal public utilities, and the other by the people at large. The first part has been practically subscribed, and nearly \$200,000 has been actually raised among manufacturers, bankers, merchants, real-estate men, hotels, etc. It is expected that a little more manifestation of the Atlanta spirit will in a short time produce \$1,000,000 to assure the success of the exposition.

In a letter to the *MANUFACTURERS' RECORD* Mr. Paul A. Bowden, cashier of the Farmers and Merchants' Bank, Thomson, Ga., writes:

The writer is very much interested in your

paper and repeats what he has often said, that the *MANUFACTURERS' RECORD* is doing more to build up the South in every way than any other paper, and I wish to thank you for the effort you are making.

#### THE TRACKLESS TROLLEY CAR.

With the rapid growth of demand for interurban transportation facilities, and sometimes in localities where the construction of electric railways would be likely to result unprofitably, the projectors of railways have cast about them in search of some other system of operation with a view to economy, considering in turn large passenger automobiles and also railway motor cars, but, with scarce an exception, overlooking the trackless trolley omnibus which is used at several places in Europe. Some time ago the projectors of an interurban transit line in the Southwest announced their contemplated intention to operate by means of trackless trolley cars, but up to the present the plan has not been fulfilled. Yet here and there other projectors are even now considering the practicality of this mode of travel with the idea of possibly adopting it as the solution of their traffic problems.

Economically the trackless trolley is the opposite of the gasoline motor car. While the latter attains economy in first cost by avoiding the erection of power-houses, poles and overhead wires, etc., the former secures economical results by avoiding the construction of tracks. To be sure, the automobile omnibus demands neither track nor trolley, but its adaptability for continuous and heavy service seems to be questioned, and its carrying capacity is usually limited as compared with that of the gasoline motor car.

So many factors enter into the subject of interurban transportation that the choice of suitable vehicles for passengers and the selection of a motive power become difficult when the tried and proven electric trolley cars are found to be too expensive in first cost and in service to permit of consideration. Hence some information concerning the trackless trolley is interesting and valuable to anybody who may be called upon to meet such a situation as is here outlined. This is furnished in a report from Consul-General Mason at Paris. He writes that the trackless trolley omnibus line between Fontainebleau and Samois-sur Seine, France, is nearly three miles long over a macadamized road with no grade exceeding 4 per cent. The fare is eight cents for part or all of the distance, and the speed is eight to nine miles per hour. Each omnibus can carry 24 passengers, and the total cost of operating it per day is \$5.05. The line has been in use four and one-half years, and the company's director is reported as saying that it has been satisfactory and successful. The cost of an omnibus is \$3281 and the cost of the trolley line is about \$1930 per kilometer (3280 feet), or a little more than three-fifths of a mile. Similar lines are in use at Montauban and Marseilles, also in France.

A report sent by Consul-General Thackara of Berlin does not apparently develop such an agreeable state of opinion as to the operation of trackless trolley systems, although it is admitted that the peculiar conditions under which the German line considered was installed rendered it unprofitable. This line was operated for about five months at Eberswalde in 1901. The route was only one kilometer long, from the railroad to the center of the town, and over a road partly paved with stone blocks and partly macadamized. The rate of fare was but 2.38 cents per passenger,

and each omnibus seated only 18 persons. A description of the system shows that a flexible cable extended from the trolley, which ran upon double wires, to the car, and permitted it to turn in and out to avoid obstacles and to a considerable degree to move about as do other vehicles. A wheel steering-gear guided it.

After remarking that the cost of installing the Eberswalde line was exceptionally high, owing to unusual conditions, Consul-General Thackara says that the estimated cost of such a line 3.1 miles long under ordinary circumstances is thus: Electric line, \$9650; two cars, \$6048; car depot, \$2702; total cost of operation per year is \$1737, and the estimated annual receipts are \$3088, leaving a profit of \$1351. He observes, however, that there was some difficulty in keeping the trolley on the wire at times. It is furthermore particularly noted that while the consumption of power is practically the same as with cars on rails, this result is obtained on fine roads, hard, smooth, clean and free from stones. These are, of course, important conditions to securing economical results.

It would seem, therefore, that the trackless trolley omnibus system might find a place in certain parts of this country where the roads are equal or nearly equal to those in France or Germany, and where other conditions may render it inadvisable to adopt electric railways. This method of operation has some features to commend it over the gasoline-operated automobile. There is neither smoke nor smell nor any danger of explosions, and the starting of a car, which may have been some time at rest, is as easy as the starting of an electric railway car. Perhaps the trackless trolley may yet solve a transportation problem for some sections in the United States where it may not be desirable to use any of our existing types of motor cars.

#### COINCIDENCES OF OGDENISM.

Under date of March 24 emerged from the precincts of Wanamaker's, New York, given thereby so much gratuitous advertisement during the past five or six years, the annual announcement of the "Conference for Education in the South." Coincidentally plans for continuous performance of the Tuskegee celebration are announced, and, as usual, is published in New York, for consumption in the provinces, something about the immense sum of money at the disposal of Ogdénism, of which the "Conference for Education in the South" is one of the principal advertising agencies. The call is comparatively tame, inasmuch as the "conference" goes this year "to a district quite distinct from any territory directly influenced by previous meetings," and, it may be presumed, because persistent and intelligent criticism of Ogdénism has compelled it to walk as warily in its approaches to the Southern people as its negroes are taught to walk at Tuskegee, a main protegee of Ogdénism. When the thing, with its \$100,000-a-year stake and with its talk of millions, started on its rambles through the Piedmont South, the "humbler clergy" and others who might be prone to question the origin and the purpose of Ogdénism were told through the *New York Mail and Express*, one of its leading organs, that they "will get out of the way of the steam road roller or be lost under its pressure." That didn't scare worth a cent disinterested and thinking men, and these really had nothing but sympathy for the young college president who last year at Co-



lumbia was induced to put forth the sincere absurdity that in the "conference" "there is almost nothing unrepresented except provincial narrowness, petty animosity, selfish motive and ignoble purpose," and that its critics include "very largely that class of people whose attitude toward all progressive movements is usually the one of stolid stoicism and of passive futility."

There was reason for soreness of Ogdensites persisting in mistaken aims, for criticism, without feeling against one idea and mistaken promoters of Ogdensism or worthy folks misled into supporting it had opened the eyes of the South to the menace in the cultivation, under the auspices of Ogdensism, of a spirit that would scramble in education for any dollar that might happen along; it had awakened folks to a realization that their self-respect and self-dependence were in danger, and it had compelled Ogdensism to place far in the background its fundamental plank, "like training for blacks and whites" and all the possible ills concealed in the success of such a program, and had made it more circumspect in its pointing negroes, through practices of its representatives, to the hopeless idea of equality with whites. Preliminary, though, to the announcement that its stake had been increased to \$10,000,000 from the same source that had produced the original \$100,000-a-year campaign fund came its claim of control of the South's public-school system in the words:

**So enthusiastic, indeed, has been the response to the influences of the conference that it may be said to have at its ready command the whole machinery of the public-school system of the South.**

The claim was a wild one, but it was at the same time a premature giveaway of the evident aim of Ogdensism similar to that of its financing "General Education Board" to become "a clearing-house of educational philanthropy," which, of course, would mean control of American education in the hands of a little group dominated by incorrect views about philanthropy and education.

But neither aim will be realized, no matter how far Ogdensism may go for its meetings from the region where it first exerted itself and where it is well known. No intelligent person suspects that it has relinquished its aim. No one imagines that it will not have a certain pliable following as long as its funds hold out. But it has been compelled to walk so warily that it is practically standing still. It is being so closely studied and described that every year it will find less and less support from earnest men and women who are disinterestedly working for education on right lines and who have welcomed Ogdensism without really understanding what the end might be.

In a letter to the MANUFACTURERS' RECORD Mr. Martin V. Calvin, Augusta, Ga., secretary of the Georgia State Agricultural Society, writes:

I am keeping a tab on the great work you are doing for the South. Gradually our people have begun to appreciate it in its fullness. We are persuaded in our own minds of the wonderful country the South is, but we assert too modestly the facts which are at our command—facts which would convince them of a desirable class and win them to this section.

Mr. Calvin has published in convenient pamphlet form his plea, reinforced by statistics, that the cotton farmers of the South adhere this year to the policy set forth at New Orleans in January, 1905, when the Southern Cotton Association was organized.

#### JAMESTOWN EXPOSITION.

Mr. Algar M. Wheeler, chief of the department of exhibits of the Jamestown Exposition, has issued from the headquarters of the exposition at Norfolk a circular of information for would-be exhibitors. He states that more than 20 States will have attractive buildings, and that about 17 other buildings will be erected for the display of manufactures, liberal arts, machinery, art, agriculture, transportation, electricity, history, varied industries and foreign exhibits. In asking that all communications relating to exhibits be addressed to him, he sets forth the following facts:

1. The site of the exposition is at Sewall's Point, a short ride of less than 30 minutes by trolley or ferryboat from the several tidewater cities surrounding it, which have a combined population of 200,000. It has a mile and one-half of water frontage, and is without doubt the most beautiful location ever selected for an exposition. It is only 12 hours' ride from the homes of 20,000,000 people.

2. Special railroad and steamboat rates and facilities for shipping and handling exhibits are assured; also the usual reduction in passenger rates for visitors.

3. The customary rules and regulations governing great expositions have been adopted and will be furnished to all applicants.

4. Exhibitors will be given every attention and facility customary or possible, and receive courteous and fair treatment in all matters.

5. The system of awards will receive careful consideration and the most approved plans and methods adopted for the guidance of juries. The judges will be men of integrity and of the highest character.

6. Large exhibits may be placed in separate buildings erected by the exhibitor in desirable locations. Special consideration will be given to such, and most favorable arrangements made, particularly for live or working exhibits. Very early application is necessary to secure desirable locations. A moderate charge for space will be made.

7. Persons desiring to make small exhibits with but little expense may obtain the services of responsible and trustworthy parties who will be recommended by the exposition company and receive, install, care for, enter for competition and award and return the exhibits for moderate cost. Such exhibits will also receive attention and supervision by this department, but all exhibitors are recommended to have their own representative in charge when possible.

#### INVITING TO VIRGINIA.

In his last annual report Hon. G. W. Koener, commissioner of agriculture for Virginia, states that there are 10,000,000 idle acres of land in the State, and that money and people are needed to develop them. Immigration to Virginia has been increasing, and during the past year about 2500 farms were bought, bringing into the State about \$8,000,000. The movement of population that way is likely to be hastened by such publications as the pamphlet in which Commissioner Koener's report appears, and which contains many practical papers dealing with the crops suitable for Virginia, and it will also be hastened by the publication of a new handbook of Virginia, now in press, giving the resources of the State in the various lines for agricultural and industrial development, which will be sent out beyond the borders of the State. Commissioner Koener says that agricultural conditions in Virginia are advancing year by year, the past year having been one of the most prosperous; that lands are increasing in value in some sections to the extent of 50

per cent. and more in a few years, and that farmers are improving their system by applying modern methods in agriculture, are growing larger crops and are keeping more live-stock. Progress in horticulture has been very gratifying, and with the wider circulation of facts about Virginia as a fruit-grower, a sheep, horse and mule raiser, as a corn-producer and as a poultry-raiser, its agricultural interests are bound to be bettered. But to that end a larger population is needed, and to the attraction of such to Virginia Commissioner Koener is bending intelligent and zealous energies.

#### PANAMA TRADE CONGRESS.

Much interest is had throughout the Mississippi valley in the gathering this week at New Orleans intended to enlist the business bodies of the Mississippi valley in a co-operative effort for the expansion of the trade relations of the valley through Gulf ports with Latin-American markets. Mr. James W. Porch, chairman of the joint conference of New Orleans business bodies calling the conference, which turns immediately upon the feasibility and advisability of shipping supplies for the Panama canal through New Orleans, has well summarized the purpose of the Mississippi Valley Latin-American convention in these words:

"It needs only a concentrated effort of the Mississippi valley interests to build up such sentiment as will send the current of Latin-American shipments from all that section to the Southern gateways rather than by way of the Atlantic seaboard, through which ports the tonnage chiefly moves. We have a 12 months' port with every facility that means cheapness and expedition. Besides, we feel that we have never in a combined way gone after the business that is naturally ours in these countries. Now is the psychological moment, and it is proposed at this convention not only to discuss ways and means, but to perfect a permanent organization to be in charge of proper officers, who will be the watchdogs of this great Panama development during the next 8 to 12 years."

But the shipment of Panama supplies is but a comparatively temporary matter. The aim of the promoters of the convention has a much farther reach. As Mr. Porch has pointed out, a transcontinental railroad crosses Mexico at its narrowest part with superb harbor facilities at each end, another extends from Colon to Panama, and a third is nearing completion between Port Limon, in Costa Rica, to Punta Arenas, these three lines giving the Gulf ports outlets to the west coasts of Central and South America, that have never been thoroughly exploited by the commercial interests of the United States, and which offer wonderful opportunities, especially for the rapidly-developing region between the Great Lakes and the Gulf and the Appalachians and the Rockies, the heart of America. The formulation of some policy which may result in bringing the Mississippi valley to its due in this respect is held to be of such importance that at this week's New Orleans gathering representatives are expected from Georgia, Florida, Tennessee, Ohio, Mississippi, Minnesota, Nevada, Arkansas, Pennsylvania, Illinois, Missouri, Kansas, Wisconsin, Alabama and Louisiana.

#### LABOR.

Suggestive of the growing scarcity of labor in the South is information which the MANUFACTURERS' RECORD has received to the effect that one corporation, operating in various States of the South, needs from 7000 to 8000 men at this moment. Out of 1500 negroes employed at one point three years ago, more than 1000 have left the South for the North and West. It is reported also that many men are needed

on an important railroad undertaking at wages of \$1.25 a day with board and lodging. The pressure has been so great that turpentine operators in Florida and Georgia are looking to the Pacific coast for Chinese laborers and to New York for Italians.

#### ENGLISH TEXTILE OPTIMISM.

Optimism of English cotton spinners about the future of the industry is indicated in the fact that, notwithstanding they are facing an increasing scarcity of operatives at Manchester, 14 new mills with 1,220,356 spindles have been completed there during the past eight months, 18 mills with 1,745,000 spindles are being built, all for Egyptian cotton, 3 mills with 240,000 spindles have been completed and 34 mills with 2,818,000 spindles are being erected for American cotton—a total of 69 new mills with 6,023,356 spindles.

#### THE COTTON MOVEMENT.

In his report for March 30 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 211 days of the present season was 9,310,926 bales, a decrease under the same period last year of 1,275,947 bales; the exports were 5,056,385 bales, a decrease of 1,236,882 bales; the takings were, by Northern spinners, 1,883,115 bales, an increase of 165,247; by Southern spinners, 1,536,307 bales, an increase of 35,746 bales.

#### A PRACTICAL CONFERENCE.

Gratifying progress made by both houses of Congress in legislation for national quarantine indicates that practical results may be expected from a conference on quarantine which health officers of Texas, Louisiana, Mississippi and Mobile have requested by Dr. Walter Wyman, surgeon-general of the Marine Hospital Service, to call for New Orleans April 15.

#### ENGLISHMEN STUDY COTTON.

**Representatives of British Textile Interests on a Tour of the South.**

[Special Cor. Manufacturers' Record.]

Washington, D. C., April 4.

The Lancashire private cotton investigation commission, composed of representatives of a number of English spinning mills, who arrived in Boston last week, spent Monday in Washington and left in the evening on a tour of the South to investigate and familiarize themselves with the existing cotton conditions with a view to suggesting improvements in the handling, storing and shipping of that product.

The itinerary of the commission includes stops at Greenville, Miss.; Memphis, Tenn.; New Orleans, La.; Houston, Texas; Brownsville, Texas; Atlanta, Ga., and Charlotte, N. C., with possibly stops at Dallas, Texas, and Little Rock, Ark. On leaving Charlotte the party will proceed direct to Boston to attend the meeting of the New England Cotton Manufacturers' Association, to be held in that city April 25 and 26, after which they will attend a conference of manufacturers and growers to be held at Washington, D. C., at the New Willard Hotel on May 1 and 2. Immediately after this conference they will return to England.

The commission was appointed at the personal suggestion of Mr. H. D. Martin of Paris, Texas, who spent the present cotton season in Manchester, and who agreed to accompany them on the trip.

It is composed of H. W. Macalister of Oldham, chairman; Henry P. Greg of Manchester, W. J. Orr of Rochdale, Thos. D. Barlow of Manchester and G. Lennard Holden of Manchester, with George Moores, F. S. S., of Manchester, secretary, and the promoters of the tour are Sir Elkanah Armitage & Sons, Ltd., Ashton Bros. & Co., Ltd., John R. Barlow of Bar-

low & Jones, Ltd., Calico Printers' Association, Ltd., Frank Calvert of Wm. Calvert & Sons, Ltd., W. Oswald Carver of the Hollins Mill Co., Joshua Hoyle & Sons, Ltd., R. H. Jackson of Hoyle & Jackson, Ltd., H. W. Macalister of Springhead Spinning Co., Ltd., C. W. Macara of Henry Bannerman & Co., Ltd., J. Prestwich of the Busk Mill, F. Reyner of Reyners, Ltd., and Ryland & Sons, Ltd.

The headquarters of the commission are at 32 York street, Manchester, England, while temporary quarters in United States have been established in care of George R. Read & Co., 1 Madison avenue, New York.

The party is also accompanied by their Southern tour by Mr. Jas. R. MacColl of Pawtucket, R. I., president of the New England Cotton Manufacturers' Association.

In speaking of their visit to this country Mr. Macalister stated that the English spinners were laboring under great disadvantages, owing to the unsatisfactory manner in which cotton is received at their mills, and their object in visiting the cotton fields is to familiarize themselves with the manner in which cotton is grown, handled, stored and transported, looking to a betterment, if possible, of the existing conditions. He also stated that the commission does not represent any trade body or organization, but is purely a private affair, being undertaken at the instigation of about 13 spinning companies.

#### NATURAL GAS AT SHREVEPORT.

Connection Now Made With the Louisiana Field.

[Special Cor. Manufacturers' Record.]  
Shreveport, La., April 2.

Natural gas is being burned in Shreveport. At 10:30 o'clock Saturday, March 31, gas was turned on under the boilers at the power-house of the Shreveport Gas, Electric Light & Power Co., which will distribute the natural gas supply about the city. For months work went on in order to complete a pipe line 23 miles in length from the gas field to Shreveport, and this was followed by the construction of a belt line which completely circles the city and feeds the service mains. The output of the wells now developed is at least 6,000,000 cubic feet of gas every 24 hours, according to S. S. Hunter, one of the members of the Citizens' Oil & Pipe Line Co., owner of the gas wells and of the pipe line.

At the city limits the big pipe line enters a station where the pressure is reduced from 200 pounds down to 20 pounds and turned into the high-pressure belt line owned by the distributing company. At all points along the belt the pressure is 20 pounds. From the belt it is sent through individual reducing stations at the plants of large consumers and it enters boiler-rooms at a pressure of five ounces. The distributing company furnishes individual reducers, which cost about \$1000 each, and supplies all equipment up to the boiler-rooms. Fittings and burners must be provided by the consumer. In the residential districts the street mains are supplied with a pressure of four ounces, the reduction being made through four stations located along the route of the belt line.

After some experiments are made by the light company the supply will be turned on for the benefit of the entire city. Already five individual reducing stations have been installed.

Manufacturers' rates are scaled to fit the consumption. The average factory rate will be about 11.99 cents per 1000 cubic feet of gas. For residences the light company has announced a net rate of 31½ cents per 1000 cubic feet.

W. A. PAYNE.

The tenth convention of the American Foundrymen's Association will be held at Cleveland, Ohio, June 5, 6 and 7.

#### AMERICAN IRON IN 1905.

Phases of One of the Most Prosperous Years in This Country.

The annual report of the American Iron and Steel Association, now in course of preparation, will contain the following, reviewing the American iron trade of the past year, as quoted by *The Bulletin* of the association:

"The year 1905 was not only the most productive and the most prosperous year in the history of the American iron trade, but it was the most uniformly prosperous year. From January to December the demand for all leading forms of iron and steel and for the raw materials of their manufacture was continuous and persistent. There was no 'dull season,' no overloading of the markets, no slump in prices. Upon the other hand there was no great scarcity of iron and steel at any time, the markets in the main were well supplied, and consequently there were no 'famine' prices. The orders that were sent abroad entirely lacked sensational features, because we had the capacity to meet our own wants for pig-iron and finished iron and steel. Nor was our export trade neglected, as will presently be seen. Production was abnormally and phenomenally great, but, best of all, prices were wisely kept within reasonable bounds. We have heard of no complaints that prices were too high. There were, of course, fluctuations in prices, as is always the case in years of prosperity or years of dull trade, but in 1905 such decline in prices as took place was caused mainly by the naturally lessened activity of the summer months. This decline affected only a few products.

"The increase in the production of iron and steel in 1905 as compared with 1904 was simply marvelous. Pig-iron jumped from 16,497,033 tons in 1904 to 22,992,380 tons in 1905; Bessemer steel from 7,859,140 tons in 1904 to 10,941,375 tons in 1905; open-hearth steel from 5,908,166 tons in 1904 to 8,971,376 tons in 1905, and all kinds of rails from 2,284,711 tons in 1904 to 3,373,929 tons in 1905. The total production of steel in 1904 was 13,859,887 tons, but in 1905 it exceeded 20,000,000 tons. The total shipments of iron ore from the Lake Superior region increased from 21,822,839 tons in 1904 to 34,353,456 tons in 1905. It is freely predicted that even the above extraordinary figures of production in 1905 may be exceeded in 1906. The present outlook certainly justifies this opinion. The country is steadily increasing its capacity to meet any possible demand that may exist for either pig-iron or manufactured iron and steel. There were no strikes or lockouts in the iron trade in 1905 that are worthy of mention.

"The prices of iron and steel which prevailed in 1905 were not only kept within reasonable bounds, as above stated, but the advances that occurred over the exceedingly low prices of 1904 were really smaller than the extraordinary demand would have justified, while the forbearance of the steel-rail manufacturers in keeping the price of rails all through 1905 at the same figure that prevailed all through 1904 is worthy of special mention. The railroads were helped greatly by this low price, \$28, but if the critics of the so-called trusts in the iron trade could have had their way and suppressed all of them the price would have probably soared 50 per cent. higher, at least for a short time.

"The extraordinary demand for iron and steel in 1905 was primarily due to the continued prosperity of the country, notwithstanding the reaction of the stock market in 1903 and 1904, which unfavorably affected all business. The reaction having spent its force in the summer of 1904, the pendulum swung in the opposite direction in the last quarter of that year and in

1905. With re-established confidence in the business world, good crops, an abundance of good money, continued tariff protection against foreign competition, a large increase in our population and the steadily-increasing use of iron and steel for engineering purposes and in the construction of buildings and railway cars, the great demand for iron and steel in 1905 was naturally to be expected, and it was encouraged and promoted by the good sense of the manufacturers in keeping down prices.

"As in other years, the railroads were the best customers of our iron and steel manufacturers in 1905. Their increased prosperity in that year, in harmony with that of the country generally, called for larger expenditures for rails, cars, locomotives, bridges, etc., than in 1904. There was in 1905 an increase in the mileage of new railroad track and the betterment of track already built, and in the same year more cars and locomotives were built in this country than in any former year. The Baldwin Locomotive Works built 2250 locomotives in 1905, but in 1904 they built only 1453. Thus far in 1906 there has been no abatement of the demand for railway equipment.

"One of the interesting features of the iron trade of this country in 1905 was the great increase that took place in that year in our exports of iron and steel, notwithstanding the active home demand for these products. In 1904, when this demand was far from being satisfactory to our manufacturers, when prices were low and customers, whether at home or abroad, were badly wanted and diligently sought for, we exported iron and steel products of the value of \$128,455,613, greatly exceeding the exports of any previous year, but in 1905 we exported iron and steel products valued at \$142,928,513, an increase over 1904 of \$14,472,900. Much of this increase was due to the systematic activity of the United States Steel Corporation in pushing its wares into foreign markets. Our imports of iron and steel in 1905 also showed an increase over 1904, amounting in 1905 to \$26,392,728, against \$21,621,970 in 1904. All the increase in exports in 1905 over 1904, and probably more than this, was caused in part by the expansion of our own iron and steel industries in that year, making necessary an increased importation of spiegeleisen, ferromanganese and other so-called raw materials, and in part by large importations of pig-iron itself to be exported in finished forms with the benefit of the tariff drawback."

#### The Tennessee Company.

Editorial correspondence dated March 28 from Birmingham, Ala., in the *MANUFACTURERS' RECORD* last week told of the meeting held in that city by the directors of the Tennessee Coal, Iron & Railroad Co. and the Republic Iron & Steel Co. Later it was announced at Birmingham that Mr. Don H. Bacon, for many years the efficient president of the Tennessee Company, had tendered his resignation of that office, as well as that of chairman of the board of directors, and is to be succeeded by Mr. John A. Topping, the new president of the Republic Company and chairman of that company's board of directors. While no authoritative statement has been made regarding the companies' proposed improvements in the Birmingham district, it is understood that arrangements will be made for carrying to completion during the next year, beginning this summer, the extensive improvements which have been previously referred to. In January the Tennessee Company increased its capital stock from \$23,000,000 to \$30,000,000, and the increase will be expended from time to time to give the steel plant and blast furnaces the highest

state of efficiency, and general improvements will be made in the coal and coke departments to secure an improved quality and a greater output of these products. More definite details as to the betterments will be announced by the officials at the proper time.

#### The Standard Warehouse Co.

A meeting of the directors of the Standard Warehouse Co. of Columbia, S. C., was held at Anderson, S. C., last week. Those present were Governor D. C. Heyward, Messrs. Lewis W. Parker, Ellison A. Smyth, W. E. Beattie, J. K. Durst, R. E. Ligon, J. A. Brock and August Kohn. The only director absent was Mr. Edwin W. Robertson. The board considered letters and suggestions for the erection or purchase of warehouses in various sections of the State. When the company was originally organized its plans were to conduct a chain of warehouses, and up to this time its facilities have been limited to plants in Columbia, Greenville, Anderson and Greenwood. The Standard Warehouse Co. has been successful in carrying out its plan for storing cotton and issuing warehouse receipts negotiable through all banks, and the certificates have been in strong demand during the past year. It handles thousands of bales during a season, and its modern warehouses, equipped with every modern device for keeping the staple in good condition and minimizing insurance rates and other charges, have enabled the organization to establish a system that is and will continue to be beneficial to Southern cotton-growers. The company has a capital stock of \$500,000, and will increase this from time to time as occasion demands. Its directors are all well known in the cotton trade and in the cotton-milling industry.

#### More Details of Willard Plant.

Last week the *MANUFACTURERS' RECORD* referred to the new plant to be erected at Wilmington, N. C., by the Willard Bag & Manufacturing Co., and some further facts, including corrections of figures given, are of interest. The company has purchased several acres of land, the site having railroad conveniences and being adjacent to deep water, where it will erect a factory with an annual output of 6,000,000 burlap bags and about 50,000 dozen overalls. The burlap cloth used will be imported direct from foreign ports through the Wilmington custom-house, and it is hoped later to arrange the transshipment of the goods from Liverpool direct to Wilmington. This will provide an exceedingly low freight rate, especially in view of the fact that Wilmington is the only free port, so far as pilotage charges are concerned, south of Maine. Wilmington will be made a distributing point for burlaps, which are used largely in the original bales by the cotton mills in the city's territory. Heretofore the company has not directed its efforts in this direction. The new building will be two stories high, 50x225 feet, erected of sand-lime brick and be equipped with 250 sewing machines, all driven by induction motors geared directly to the operating shafting in units of about 50 machines. The entire plant will represent an investment of \$25,000. The company was incorporated in 1893, and its capital stock has since been increased to \$50,000. Mr. E. Payson Willard has had charge of the enterprise since 1894, being secretary and general manager.

#### Water-Works Needed.

"Property-Owner" writes the *MANUFACTURERS' RECORD* that a recent fire in Clinton, N. C., indicates that the little city needs a system of water-works. The population is about 1500. Information can probably be obtained by addressing the town clerk.



## Bristol: Center of Extensive Industrial Growth.

[Special Correspondence Manufacturers' Record.]

Bristol, Va.-Tenn., March 31.

Here, as elsewhere throughout the South, but more particularly in this Virginia-West Virginia-Kentucky coal district, there is a development in progress so extensive and so momentous as to baffle any attempts to circumscribe its bounds or chronicle all its features. It is almost as if the prophets, the very dreamers of a generation ago, had rubbed some vast Aladdin's lamp and a host of genii had started forth to make realities of all the visions of greatness for this section that had been foreseen in all the years since coal became recognized as the king of the industrial world.

While Southwest Virginia—and the same holds good as to much of the adjacent territory of West Virginia, Kentucky, Tennessee and North Carolina—may with all propriety be denominated as still an unexplored region, in the sense that anything like complete knowledge of its resources has been ascertained, yet the general broad facts of enormous wealth in coal, iron, timber and other resources were so well established in the years long gone that it is almost amusing to see the present titanic battle in progress between the giants of railroad affairs who are frantically striving for strategic positions in this section as though its importance had just now been discovered, while in these hills and vales are sepulchred the bones of men who wore out their strength trying to induce capitalists to develop this country long years ago.

Hardly a newspaper today appears without the announcement of some new railroad project, with design to penetrate the coal fields of this section, to make easier the development of the territory and the shipment of its products to the lakes on one side and to the interior South and the seaboard on the other. Uncomputed millions are committed to railroad construction right now, and in addition there are projected railroads so numerous that one finds it impossible to remember even the incorporated names. Branch lines and extensions to feed the old-established roads are among these lines projected, as well as railroads which in their scope and purpose are practically new trunk lines, and yet an examination of any old map of this section will demonstrate that hardly one road now building or talked about is anything other than the realization of some bygone dream. The very names of these railroads make demonstration of the fact that their projectors were as keenly alive to the possibilities of the situation as are the men of millions who are on the ground today.

Twenty years ago there were several sections built of the Charleston, Cincinnati & Chicago Railroad. One section of that financially-starved enterprise, born before its time, is today the nucleus for the South & Western, one of the most important railroads now building in the South, which will take the coals of Virginia to the factories of the Carolinas, and, either through connections or lines of its own, will ultimately land these coals on the wharves of Chicago and at the South Atlantic seaboard.

The South Atlantic & Ohio is another extinguished name that gives proof of the prophetic vision of the ancients, and in its reincarnated form of the Virginia & Southwestern it is palpably predestined to play an important part in the development of this section.

The present great activity is a matter of very recent years, and although a mighty vigorous start has now been made, it is everywhere believed and universally conceded that what is being done is only

a mere beginning. Individuals and corporations representing the strongest forces in the American field of finance have become heavily interested in the properties and enterprises of this section. Behind the railroads are men who control the destinies of the great trunk lines of the South, and owning a large percentage of the coal, iron and timber lands of this region are these and other masters of finance and industry, whose announced purpose in coming here is to develop and build up. Such men as Ryan and Morgan are tremendously in earnest in their efforts to get a strong foothold in this territory, Ryan and his associates being behind the South & Western, which is to carry Virginia and Kentucky coals to the South, in connection with the Seaboard Air Line, which the same interests own, while Morgan's Southern Railway is pushing its way into these fields in conjunction, as is generally believed here, with the so-called McHaarg interests, who own the Virginia & Southwestern Railroad, and though under a separate organization and with some variations as to stockholders, are also owners of the Virginia Iron, Coal & Coke Co.

Coincident with these important moves in railroad construction and extension, with the great prize of coal transportation as the first consideration, there are developments in many other directions, such as timber, iron and minor industries, and with what is in sight and now under way it is evident that an era of activity and development in many diversified lines is about to dawn on this section that will bring to pass perhaps every prediction of the "boomers" of 15 or more years ago, roseate as was their hue.

It will be some time yet before even the main plans of the big railroads have been worked out and the lines opened for business, but the general development of the section is already proceeding with renewed energy, and with the added impetus which the completion of the railroads' plans must give there will undoubtedly occur in this whole region activities of so broad a character as will build up numerous large centers of population, trade and industry and bring a degree of prosperity of the most important sort.

A number of cities and towns along the Norfolk & Western, by which line I came into Bristol, give visible evidence of their growth as one views them from the train after an absence of some years. Material increase in population, construction of new residences and stores, the establishment of new industries and the expansion of old plants are signs which one who runs may read. While the development is most apparent and the whole region seems connected with the uplift, yet detailed investigations reveal the fact that only the outer edges of opportunities have been utilized, and that the achievements made, notable though in many instances they have been, are only the preliminaries of what should and doubtless will be seen. Thus here at Bristol there are no furniture factories nor any woodworking plants that produce other than merchantable stuff for shipments to outside points, and yet no section is surrounded with more or better forest supplies of hardwoods, and Bristol is headquarters for great lumber activities extending 100 miles around. It is estimated that from 80,000,000 to 100,000,000 feet, largely in the shape of boards and plank of poplar, oak, chestnut, basswood, spruce, hemlock, white pine and walnut, are shipped through Bristol during a year, billed to Eastern and Northern markets and for export trade. There is every expectation that operations on this scale will continue for at least 10 years to come, and even

then this section will be as well off for supplies as any other should furniture and other woodworking plants be established here meanwhile.

One reason doubtless for the present failure to develop furniture factories here is that, unlike High Point and other North Carolina furniture-making centers, an early venture in that line has not met with success. A splendidly-equipped plant is now standing idle here, and is to be sold shortly at trustee's sale. The very complete explanation of that failure is the fact that the parties who came here and built the plant made extravagant expenditures and completely exhausted their capital before the factory was ready to start. Borrowing \$30,000 with which to carry on business, the venture was a foredoomed failure. Over \$125,000 has been spent in buildings, equipment and experimental work, and as a sale can be made for enough merely to cover the liens on the property and the banks of the city stand ready to extend co-operation, it would seem that some practical furniture manufacturer ought to be attracted to the opportunity, and that with one successful plant of the kind in operation there should follow a development in furniture manufacturing here.

With an abundance of raw material of various kinds, with favorable freight rates and close proximities to markets, East, North and South; with steam coal of the highest grade—run of mine—screened at \$1.70 a ton; with a population, local and surrounding, out of which satisfactory labor may be developed; with the undoubtedly desirable climate of this section also, it would seem that the work of creating an industrial center here should be a certain and a comparatively easy achievement.

In some lines a remarkable development has already occurred. Altogether there are some 80 industries here, large and small, and there is a pay-roll of about \$2,000,000 a year, along with an increase in population from 10,000 six years ago to over 15,000 today. There has been an increase in value of manufactured products of an even greater per cent., the totals running from about \$5,000,000 a year in 1900 to some \$8,000,000 today, and this exclusive of the lumber operations noted, and the assessed valuation has jumped from \$1,850,000 in 1900 to about \$4,425,000 today, and unique among industries in the South are a wood-pulp mill, tannery and extract works and a barytes mill located here. The pulp mill is one of the two operations carried on by the Columbian Paper Co., a corporation composed of Philadelphia capitalists, whose other mill is at Buena Vista, Va. At the Bristol mill only wood pulp is made, while there are pulp and finishing mills at Buena Vista. The Bristol mill, however, has double the capacity of the Buena Vista pulp mill, and a finishing mill may be added here later on. Outside of the West Virginia mills at Richmond, the recently projected mills at Waynesville, N. C., and Lynchburg, Va., these are the only pulp mills in the South in practical operation, and there are finishing mills at only one or two places.

The material from which the pulp is made by the soda process is poplar and basswood, which is secured from a territory extending for some 220 miles around Bristol. The wood is shipped in cordwood sizes, and is of such quality as is unfit for merchantable timber. From 75 to 80 cords are used per day, and the output of pulp is about 35 tons a day. It is shipped in rolls to paper mills everywhere, and is used in making paper of every kind outside of stationery. This plant was established here five years ago through the personal efforts of Col. J. B. Peters, general manager of the Board of Trade, and is one of numerous industries which Colonel

Peters has succeeded in locating at Bristol.

The capitalization of the Columbia Paper Co., which covers both plants, is \$700,000. The Bristol plant makes 130 bands, divided into day and night shifts, and is regarded as altogether a decided acquisition to the industrial life of the city.

The tannery and extract works are branches of the world-famous belt manufacturers of New York, Chas. A. Schieren & Co., whose extensive operations here will be treated by me in a separate letter. In it I point out how beneficial this house has been to this section, in that a new industry giving employment to 225 hands has been built up, and that not a dollar is taken out of the community, while more than \$2,000,000 has been brought from the outside and put in here for wages and raw materials since the tannery and works were established. The tannery is within two or three of the largest anywhere, and the tannery and works combined are not excelled in size by any similar operation in the South.

The third unique industry is the barytes mills of John T. Williams & Sons. Mr. Williams is a very extensive builder of New York. He built and owned the great Lards Court building at 27 William street, New York, the recent sale of which attracted much attention from the extraordinary size of the transaction. Mr. Williams' son, John T., Jr., is in active charge of the mills at Bristol, although Mr. Williams, Sr., is a frequent visitor to the works. This is a new industry, and came here because of advantages of location. The known barytes deposits of this country are very few, one field being in Southern Missouri and Arkansas and the others in Virginia and Tennessee, equidistant from Bristol about 100 miles each way. There are but three barytes mills in this country, the two others being in St. Louis, and these mills supply about 90 per cent. of the barytes and barium salts used in the United States.

The principal use of barytes is as a paint filler. At the Bristol plant 60 to 70 hands are employed. In addition to the barytes mill, a barrel and stave factory is run by the company, not only to furnish such barrels as are needed for shipping barytes, but also for the general trade.

One of the important operations of the Virginia Iron, Coal & Coke Co. is at Bristol. In addition to the 150-ton blast furnace, the company has removed its rolling mill from Max Meadows and will install additional machinery and increase capacity, so as to employ about 150 men and turn out 9, 12 and 18-inch bar iron for the trade.

The Farnsworth Pump Co., to manufacture a new patented pump, is a recent acquisition. There is capital stock of \$100,000, machinery is now being installed and an important new industry is expected to be developed.

The Harris Stone Works is another new plant not yet in operation, formed by local capital to manufacture various kinds of heating and cook stoves.

Peters & Goodwyn, the latter from Washington, D. C., are adding to their coal business a refrigerating and cold-storage plant at a cost of about \$30,000. This is the first cold-storage plant in this section, and as East Tennessee is a great producer of eggs and poultry and \$150,000 worth being marketed in this section during a year, this enterprise is expected to fill a long-felt want.

Extensive tobacco factories, foundries and machine shops and the various minor shops found in similar communities of 15,000 population comprise the remainder of the industries here. All are well established and on a basis to grow, and with so many advantages many others ought to come. This is a good town, with fine educational institutions and exceptionally

good newspapers, and with the march of events hereabouts it should become an important place.

ALBERT PHENIS.

### Texas Water Resources.

The underground waters, springs and streams of the eastern portion of the Panhandle of Texas are discussed in considerable detail in a paper for general distribution by the United States Geological Survey, prepared by Prof. Charles N. Gould. The underground waters are included under two heads—red-beds waters and Tertiary waters. The water of the red beds is limited in amount and is usually impregnated with mineral salts, particularly gypsum and common salt, so that it is often unfit for general use, while the Tertiary water is uniformly abundant and almost always pure and wholesome.

The springs from the red beds and those from the Tertiary and sand hills differ considerably, both in amount of flow and in character of water. The red-beds springs may be classified as salt springs, gypsum springs and fresh-water springs. Those of the Tertiary deposits are always of good water, and have long been most advantageous to the settlers and travelers.

The drainage of this region flows into Mississippi river. The water from the northern part of the area flows into either the Canadian or the North fork of the Canadian, tributaries of Arkansas river, while the water from the southern part reaches Red river.

A considerable portion of the Panhandle has no developed drainage. Scattered at irregular intervals over this flat surface are saucer-shaped depressions, in which water collects. In size these depressions vary from the ordinary "buffalo wallow," a few feet across, to lakes hundreds of rods in diameter. The influence of these lakes upon the settlement of the country has been important, as the early cow camps were always located beside some permanent body of water.

In a region with climatic conditions such as those in the Panhandle irrigation is necessary for successful farming. Four possible sources of water for irrigation are discussed by Professor Gould—(1) streams, (2) springs, (3) stormwater and (4) wells. The local conditions make it seem very doubtful whether there will ever be any extensive irrigation in this region. It is possible, however, that thousands of small pumping plants will be established here in the future, each capable of supplying sufficient water to irrigate a garden and an orchard.

Professor Gould concludes his paper with a discussion of the water conditions by counties.

### Big Flouring-Mill Plant.

It is announced that the H. T. Lawler Milling & Trading Co. of New Orleans has completed plans and made contracts for the erection of its proposed extensive flouring-mill plant. This establishment will include a main building six stories high, 42x85 feet; a warehouse one story high, 65x85 feet, with a storage capacity for 15,000 barrels of flour. On the roof of this warehouse will be seven wheat storage tanks, each with a capacity of 5000 bushels. These buildings will be constructed of steel reinforced with concrete, and their mechanical equipment for milling will give an output of 1000 barrels of flour daily. About \$100,000 will be the cost of the entire plant. Messrs. MacKenzie & Goldstein have prepared the plans and specifications for the two buildings. Mr. H. T. Lawler, president and manager of the Lawler Company, has visited Cuba and there made arrangements for the entire output of the mill to be taken by the trade of that island. The milling machinery is being forwarded by Pennsylvania

manufacturers, but the company is still in the market for engines, boilers, electrical equipment and American Portland cement.

### The South and Cincinnati.

In a comprehensive survey of recent Southern development and its relation to Cincinnati Mr. W. C. Rinearson, the active and efficient Cincinnati general passenger agent of the Queen & Crescent Route, writes:

"I have been greatly pleased in my recent tours through the cotton States to recognize the kindly feeling that is growing there for this city. It is ancient history why an estrangement grew up between us. That the South felt justifiable in its withdrawal of trade from us is a sentiment shared by many of our own people. But old things have passed away, and the breach has been healed as much by our own endeavor as by the generous spirit of the South that is not slow to forgive. The South is fully alive to the fact that this city is its natural market, and that it can purchase everything needful here with as little expense as elsewhere, with railroad facilities giving us the balance of power. The South is our natural commercial tributary just as Chicago is that of the Northwest. My attention has been directed recently to the interest developing in the South in our fall festival. This endeavor upon our part to enlarge the opportunities of advertising our commercial strength and to obtain ideas from other sections is sure to evolve great things in the future. I am glad to see the purpose upon the part of the festival directorate to extend its aims to the enlargement of our relations with the South. The interest of serious nature taken in the festival by the industrial bureau, advertisers and commercial clubs and all other organizations that have for their purpose the honor and glory of Cincinnati is in itself an object-lesson to the South and proves the evidence of our own faith in the project. The future of this city as a great metropolis depends upon our own works and that spirit of fairness without which no greatness may be assured.

"During the yellow-fever panic of 1905 the Southern people appealed to the management of the Queen & Crescent Route for extra accommodations for transportation of refugees to the North. This was not only readily conceded, but Cincinnati most hospitably opened its arms to receive them, a fact that caused large gratitude throughout the South."

### Literary Notes.

Heat and Light From Municipal and Other Waste. By Joseph G. Branch, B.S., M.E. With 56 illustrations. Publishers, William H. O'Brien Publishing Co., St. Louis, Mo.

The problem of the disposal of wastes in cities is as pressing as the problem of lighting cities; the tendency of the day in all businesses is to utilize economically what has long been waste. The application of this tendency to municipal business is the burden of Mr. Branch's volume. He correctly assumes that the first consideration of all municipalities should be the safety and health of its citizens and that necessities controlled by public grants should be secured at a reasonable cost. He contends that not only has the disposal of refuse not as yet been made sanitary in this country, but that the enormous amount of public money annually spent for this work reveals the waste of American cities in comparison with foreign cities. He finds that New York city alone compares favorably with foreign ones in the cost of disposing of its refuse, and that the reason for the enormous discre-

pancy is that all refuse in foreign cities is incinerated and the heat from the process is utilized for public works, such as electric lighting, water supplies, sewerage pumping, etc. He points to central heating plants as another means of economical disposal of refuse. Developing his thesis, he presents in several chapters a mass of valuable information based upon official data which is invaluable to municipal engineers and other authorities.

Gas, Gasoline and Oil Engines, Including Producer-Gas Plants. By Gardiner C. Hiscox, M. E. Publisher, the Norman W. Henley Company, 132 Nassau street, New York. Price \$2.50.

A book representing and illustrating the details of design, manufacture and management of a new and progressive prime-mover power falls behind its time by age, and therefore needs rearrangement and additions to bring its text and illustrations up to date. A most important mechanical industry is that involving the production of motive power for all purposes within the age of steam, referring to the explosive motor and its far-reaching effect in the promotion of industry by a cheap helping hand. So quickly has this new power expanded to almost universal usefulness as a labor-saving element in the lesser industries that past literature is lacking in its up-to-date needs. The progress made in adapting the use of crude petroleum as fuel for explosive power, together with the rapid development of the producer-gas industry, have given a new economy in the production of power, while the use of the hitherto neglected gaseous elements of the blast furnace and coke manufacture have added new sources of power production at a nominal cost. With these facts in view Gardiner D. Hiscox has revised, rewritten and added to the contents of the previous edition of his work on the subject of explosive motors. He refers to the latest standards of construction and operation of the explosive motor, and includes an illustrated chapter on the production of the new fuel gases and their uses. The producer, suction, blast-furnace and coke-oven gases, which are now coming to the front on a large scale for economic power, are included in this work, while crude petroleum and its conversion into power fuel is described and illustrated in the chapter on oil-vapor motors. The insurance interest has formulated rules and regulations for the safe installation of gasoline motors and producer-gas plants, which are given place in this edition. The list of patents has been extended into the past year, and the names of manufacturers of explosive motors of all types in the United States and Canada have been added for the information of inquirers. The publishers have had the entire work reset from new type, and have added several hundred new illustrations.

The Prairie and the Sea. William A. Quayle. Publishers, Jennings & Graham, Cincinnati; Eton & Mains, New York.

This handsomely-illustrated volume embodies interpretations through the pen of the author and the camera and pencil of the author and of C. S. Parmenter, F. A. Carrier, C. W. Boynton, L. M. Powell, John Davis, L. L. Dyche, W. S. Grim and Grace Medes of nature's many moods in different seasons and in various parts of the country. Its wide scope is indicated by the many topics discussed—"The Prairie," "The North Wind," "I Saw a Bluebird," "A Walk in Late November," "When the Frogs Sing," "The Spring Wind," "The Open Road," "Sunflowers," "The Passing of Autumn," "Tree Pillars," "The Summer Wind," "A December Spring," "Mountains," "It Is Raining,"

"Bird's-Nesting," "The Autumn Wind" and "The Sea." These are a series of charming out-of-door essays revealing close observation, poetic sentiment and ability to charm the reader, whether one of the "shut-ins" or one able to take original notes of nature's doings.

Immigration and Its Effects Upon the United States. By Prescott F. Hall. Publisher, Henry Holt & Co., New York.

This is the first in the series, "American Public Problems," which it is planned gradually to augment until it covers the field of controverted topics in American political, economic and social affairs in which there is any widespread public interest. In "Immigration" the author seeks to cover comprehensively a subject which is attracting much attention at present, and to illuminate it with facts and deductions of value to public officials and men of affairs generally. The general field of immigration and emigration is surveyed, and special attention is given to the many problems, racial, economic, social and political, growing out of immigration; legislation in the premises is analyzed, a special part is devoted to Chinese immigration, and in appendices is included a mass of authoritative figures and other official material, together with a fairly good bibliography. If the volume has any particular trend, it is in the direction of a certain degree of restriction of immigration.

Producer Gas and Gas Producers. By Samuel S. Wyer, M.E. Publisher, the Engineering and Mining Journal, New York. Price \$4.

This is the latest and most complete treatise on the subject of gaseous fuels, a subject which has attracted considerable attention for many years, during which important industrial advances have been made dependent upon the development of the use of fuel gases. The first four chapters of the volume have been prepared for the benefit of readers who may not be familiar with those fundamental laws and definitions of physics and applied chemistry upon which a rational discussion of producer gas must be based, and other chapters deal with the status of producer gas, its manufacture and use, the history of gas producers, fuel, by-products, power plants, gas poisoning, etc., and the numerous experiments of the author, who is recognized as one of the highest experts on the question, will prove interesting and valuable to chemists, metallurgists, gas engineers and others.

Tarr & McMurray's Geographies. Supplementary Volume. By M. W. Twitchell, Ph. D., geologist on the staff of the Maryland Geological Survey. Publishers, the Macmillan Company, New York. Price 30 cents.

The plan of this work involves, after a brief introduction of general character, including a relief map of the State, a detailed discussion of each of the three great regions into which Maryland is naturally divided when its physiography, natural resources and industries are considered. The facts are harmoniously blended in simple but effective language, and are followed at the end of each section with review questions, while an appendix presents in condensed form a mass of facts based upon the latest available statistics.

The Business of Contracting. By Ernest McCullough. Publisher, Technical Book Agency, Chicago, Ill. Price 50 cents.

This is a pamphlet for the practical guidance of contractors of all kinds. In separate chapters it deals with a selection and administration of the staff, the foreman, bidding on work and field and office methods.



## SPANNING THE FLORIDA KEYS WITH RAILS.

### Engineering Problems Being Solved in the East Coast Extension.

[Special Correspondence Manufacturers' Record.]

Key West, Fla., March 31.

The Florida East Coast Railroad extension, notwithstanding that it is being confronted with a difficult labor problem apart from the engineering features which comprise the entire category known to the profession, with the single exception of tunneling, is proceeding with commendable spirit. A determination to complete the great undertaking, that of connecting the island of Key West, the most southern portion of the United States, with the mainland, 64 miles distant, with the least possible delay, regardless of cost involved, is a distinguishing feature of the work.

It is within the realm of conservatism to say that at no previous period of the world's history, referring to construction or engineering undertakings, can a parallel case be cited. The bold conception of connecting Key West with the mainland is now rapidly maturing from an idea to a concrete fact.

Skeptics who ridiculed the assertion that it was possible to construct a railroad connecting the string of keys with the South Florida coast, spanning intervening spaces of ocean depths, in some places seven miles in width, forming a continuous chain or line of railroad, in view of recent happenings in that connection, have changed their views. That the Florida East Coast Railroad extension to Key West will be carried out in the plans outlined is assured.

It is now conceded, thanks to the unwavering determination of Henry M. Flagler, that the project is not only possible, but also essentially practical. The enormous importance of a through railroad connection clear to Key West has never been questioned. Before the year 1907 shall have expired there will be, with the exception of seven miles, a direct railroad connection from the southern shore of Florida to Key West. The unconnected links in the chain of keys will be Bahia, Honda and Knight's Keys, seven miles of deep water separating them. The space will be spanned by the arches of a viaduct supported by columns of massive masonry of such solidity and strength as to be easily capable of resisting the force of the fiercest tropical storms, the waves breaking harmlessly against this, the staunchest form of sea-water masonry the world has ever seen. While the construction work at this particular part of the road will necessarily be prolonged, the transportation of passengers and freight will be conducted by means of huge railroad steamboats about on the same plan of construction as those operating between Oakland and San Francisco or Detroit and Windsor. Trains will run on schedule time to Key West by this means.

Arched spans of 50 feet, largely of cement formation, still further bound by powerful steel rods, will connect these two points.

Work is now proceeding all along the extension with a mathematical precision, based upon the assumed arbitrary necessity of successfully confronting contingencies, not only equal to those exceptional occurrences in their severity, but also 100 per cent. beyond that point. This applies especially to the work of bridging the deep-water spaces. For illustration, careful and repeated experiments at various intervening deep-water spaces between the keys, with the purpose of determining with scientific accuracy the volume of force a wave exerts at the moment of its greatest agitation, superinduced by the fiercest storm witnessed during the prolonged ex-

perimental period, were carried out successfully. It was figured out just what momentum and corresponding shock bodies of water in the form of waves hurled against columns of given proportions would bring to bear on the necessary construction work. The maximum height of waves in storm periods were ascertained. This being accomplished, and, accepting the results of the preliminary work as a standard for future guidance, it was determined to increase the proportions of the columns in dimensions and solidity 100 per cent. over and above those which, under ordinary engineering operations, would have been decided upon to meet the requirements. It was further decided to elevate the roadbed to a point well out of reach of the highest waves in stormy weather. No haphazard system was pursued arriving at these conclusions. The work from the beginning is part of a well-defined plan now being practically carried out.

The greatest water depths were ascertained to be 23 feet. To lay foundations for solid columns at this depth in the open sea for the purpose of carrying overhead 30 feet above the sea-level, the exact height fixed upon a roadbed for railroad purposes, proof against the fury of the elements and of sufficient stability to withstand the ravages of time is a task which human ingenuity was never previously called upon to execute. But this is exactly what is being done. The idea in its simple grandeur is the boldest conceived in railroad work or any other form of construction work.

The engineering problems to be overcome at Simplan Pass in Switzerland, and, in our own country, in successfully constructing railroads in part through and over the Rocky mountains, at the time considered marvels of engineering triumphs, sink into insignificance when compared with this latest project in railroading.

The man whose enterprise and capital were equal to the occasion in deciding to accomplish this great work, realizing that an undertaking of this character, the successful completion of which would place his railroad system in the forefront as a trunk line, was also alive to the fact that criticism strong and pointed would be aimed at the impracticability of building a roadbed mounted on a viaduct 30 feet above the sea-level, with supporting columns running into the depths 23 feet, with foundation in the form of anchorage in solid rock below this. But a study of the plans and specifications of the work now well under way will convince the most skeptical that when the whistle of the Florida East Coast Railroad locomotive sounds over the surging waters no more solid or safe railroad will exist. From the coral rocks beneath, of which they will become a concrete part, will rise majestically over the waves a series of columns of such an impenetrable and irresistible nature that the topmost portion of the structures, the roadbed, will be as oblivious to the effects of the fiercest storms as Pike's Peak. However strong the winds may blow or the waves lash, the Florida East Coast Railroad trains will be enabled to pursue their aerial course undisturbed and with absolute safety.

The anchorage or base of each column will rest on 60 pine piles. These latter, with iron-pointed shoes, will be steamhammer-driven clear through the solid coral rock. Cofferdams of suitable size for caisson work, for the withdrawal by

suction of water, will enable the engineers to charge the enormous receptacles with crushed rock, sand and cement in suitable proportions, together with the necessary quantity of steel rods. Two hundred and fifty thousand barrels of cement and 7000 tons of steel rods have been contracted for use in this work, several heavy consignments of which have already arrived. This order for cement is said to be the largest ever given for a single undertaking. All this, however, is but one of the features of the engineering work under way. South of Homestead there are 20 miles of mangrove swamp. The railroad must run over this portion of the route to connect with Key Largo. To form a solid roadbed at this point, which necessitates an enormous amount of dredging and filling in alternately, will prove a tedious as well as extremely difficult piece of work. A number of dredges are now in operation removing the apparently bottomless slush or sea mud, replacing it with crushed rock, sand and cement. Hundreds of thousands of tons of this material will be transported from the Hudson river, New York; Mobile, Ala., and South Carolina. The engineering difficulties which this work presents are probably as great as those entailed in constructing the railroad over the waves. The moving and shifting nature of the slimy material which forms the mangrove swamp renders the dredging and excavating before solid underground is secured one of the most difficult and arduous portions of the work which will be encountered. Work in this respect is proceeding rapidly, and if crushed rock and sand, knit by a liberal proportion of cement, resting on solid bottom, will not form a concrete mass offering a secure and inviting surface for a railroad bed, nothing will. However, there is no question as to the practicability of this, basing my statement on the conclusions of a number of eminent engineers of international fame.

The entire work will probably be completed in about three and a-half years, at which time it is expected a train can be dispatched from New York or Chicago destined for any point in Cuba without un-

sealing the car doors, time being about two days.

It is planned to construct and equip a system of packet steamers sufficiently large to convey a train of 30 cars from the Key West terminal of the Florida East Coast Railway system to Havana, the vessels being staunch enough to weather successfully the lumpy seas in the straits dividing Key West from Cuba.

There will be three drawbridges at suitable distances apart between Bahia Honda and Knight's Keys.

The work of grading and connecting the Southern islands is being pushed vigorously. Key West is already joined to Stock Island, formerly some 1500 feet apart. The roadbed here, due to the peculiar nature of the lime rock found in abundance nearby, possessing the properties of cement, although just completed, is packed solid and as firm as though in use for years.

Four thousand men are now at work at different locations along the Keys. Good pay, together with housing accommodation, is provided, and everything possible to forward the work is being done.

It is safe to assume the completion of this colossal undertaking is in sight. Preparations on an equally large scale from other engineering standpoints are proceeding to that end. Terminal structures at Key West, depots, wharves, warehouses, water-front piers, car-repair shops, together with deepening the outer harbor in line with the railroad sufficiently large to accommodate 40 vessels of heavy tonnage, filling in and grading of several hundred acres of low-lying water-front lands costing several million dollars, are among the plans now being carried out.

It is worthy of mention that every important move in the development of this unique and stupendous undertaking is watched with untiring interest, as well as being expedited by an eminent railroad man, J. R. Parrott, vice-president of the Florida East Coast Railroad Co., and Mr. Flagler's representative in the management of his vast properties.

JOHN BANNON.

## BALTIMORE'S INDUSTRIAL ADVANCE.

### Significant Figures of the Past Three Months' Record.

[Written for the Manufacturers' Record.]

Approximately \$800,000 invested in new buildings by various manufacturing industries, the incorporation of new companies for manufacturing purposes with an aggregate capital stock of \$2,205,000 and the increase of capital stock of old companies from \$258,000 to \$460,000 is a record which Baltimore has made for itself for the first quarter of the new year. This record is very gratifying to the business interests of the city in that it does not in any sense of the word represent a spasmodic or temporary boom, but is the result of a steady, conservative and gradually increasing growth of solid and substantial business enterprises which by strict devotion to their work have created a demand for their products that rendered larger and more commodious quarters essential.

The following shows the size and cost of buildings and character of product of each enterprise which has erected new buildings during that period, but the cost does not include the installation of any mechanical equipment, which of itself will represent the outlay of many more thousands of dollars:

Crown Cork & Seal Co.; five stories, 100x262 feet, and three stories, 50x157 feet; \$125,000; bottle stoppers.  
Oppenheim, Oberndorf & Co.; five stories,

70x155 feet; \$40,000; shirts.  
Frederick Bergner & Co.; four stories, 150x150 feet; \$60,000; albums, boxes, etc.  
C. J. Youse Company; five stories, 38x106 feet; \$40,000; paper boxes.  
Charles M. Stieff; five stories, 50x202 feet; \$62,000; pianos.  
S. H. Tinley & Co.; two stories, 85x160 feet; \$35,000; sash, doors, etc.  
Carriage & Toy Co.; five stories, 71x171 feet; \$40,000; toys.  
Detrick & Harvey Machine Co.; one story, 80x100 feet; \$10,000; machinists.  
American Bread & Pie Co.; four stories, 32x80 feet; \$20,000; bakery.  
Southern Supply Co.; five stories, 37x100 feet; \$30,000; plumbers' supplies.  
Joyce Manufacturing Co.; four stories, 80x90 feet; \$30,000; iron beds.  
S. B. Sexton Stove & Manufacturing Co.; one story, 51x53 feet, and four stories, 30x40 feet; \$15,000; stoves.  
Baltimore Manufacturing Co.; addition to main building and three stories, 38.3x42.7 feet; \$15,000; vinegar.  
Dix Manufacturing Co.; two stories, 65x112 feet; \$10,000; hardware specials.  
M. Solmsen; one story, 16x58 feet; \$2500; screens.  
Bonnert-Vogeler Company; one story, 25x70 feet; \$4000; glass decorating.

Hamburger Bros. & Co.; one story, 45x85 feet; \$5000; clothing.  
 M. J. Swift & Co.; three stories, 16x97 feet; \$5000; bags.  
 J. M. Raffel & Co.; four stories, 58x94 feet; \$25,000; paper boxes.  
 Frank C. Wachter; three stories, 43x80 feet; \$7000; cloth sponging.  
 Enterprise Wire Works; one story, 46x155 feet; \$6000; wire work.  
 Montford Machine Casting Co.; one story, 56.5x127 feet; \$7000; foundry.  
 Sterling Laundry Co.; remodeling building; \$5000; steam laundry.  
 John Vollenweider; two stories, 29x74 feet; \$4000; steel-metal works.  
 Atlantic Furniture Co.; five stories, 30x77 feet; \$15,000; furniture.  
 Dixie Manufacturing Co.; one story, 48x155 feet; \$6000; exhaust blowers.  
 Darby Candy Co.; five stories, 47x53 feet, and five stories, 45x67 feet; \$30,000; candy.  
 Preiss Bros.; two stories, 22x70 feet; \$5000; raincoats.  
 Friedenwald Bros.; two stories, 60x100 feet; \$20,000; machinists.  
 Erlanger Bros.; two stories, 41x100 feet, and one story, 17x26 feet; \$15,000; shirts.  
 Schloss Bros. & Co.; additional story, 71x165 feet; \$4000; clothing.  
 Stuart R. Carr & Co.; one story, 42.8x92 feet; \$5000; foundry.  
 John F. List & Son; two stories, 55x97 feet; \$8000; vinegar.  
 Gilpin, Langdon & Co., Inc.; five stories, 33x67 feet; \$15,000; drug millers.  
 Wm. Knabe & Co.; one story, 83x96 feet; \$25,000; pianos.  
 Higbie-Barbour Manufacturing Co.; three stories, 50x150 feet, and one story, 17x20 feet; \$25,000.

As shown in the foregoing, this increase was not confined to any particular class of industry, but includes at least 30 separate and distinct manufacturing branches, the capacity of which will in many cases be doubled or trebled.

The character of structures erected are substantial in construction, at least 10 of them being of mill or slow-burning construction and at least eight of reinforced concrete.

The following shows the different companies incorporated for manufacturing or allied purposes, with the capital stock and product of each:

Trautv-Baquel Gum Co.; \$4000; chewing gum.  
 C. J. Youse Company; \$60,000; paper boxes and novelties.  
 Shane-Beevers Company; \$8000; type-founders, electrotypers.  
 Sumwalt Ice & Coal Co.; \$100,000; ice.  
 American Pottery Supply Co.; \$150,000; pottery supplies.  
 High-Grade Lard Co.; \$5000; lard.  
 Lucas Bros., Inc.; \$24,000; printing and engraving.  
 Sterling Laundry Co.; \$20,000; steam laundry.  
 Baltimore Stationery Co.; \$10,000; blank books and stationery.  
 Baltimore Office Supply Co.; \$5000; printing and office supplies.  
 Culvert Stove & Heating Co.; \$50,000; stoves.  
 Baltimore Dice Co.; \$2000; dice, checkers, etc.  
 Kelly Stationery Co.; \$10,000; printing and stationery.  
 Calvert Electric Co.; \$2000; electrical supplies.  
 Durling Electric Co.; \$10,000; electrical supplies.  
 Baltimore Header-Bond Concrete Co.; \$60,000; concrete blocks.  
 Regurene Hair Tonic Co.; \$50,000; hair tonic.  
 Maryland Reed & Rattan Co.; \$2500; reed and rattan ware.

Louis A. Diefel Company; \$70,000; house-decorating, painting.  
 Sanitar; Stopper Co.; \$9000; bottle stoppers.  
 Charles C. Kraus Company; \$6000; sheet-metal work.  
 Baltimore Crosstie Co.; \$10,000; crossties.  
 Southern Lumber Co.; \$500,000; timber.  
 Bennett Plumbing & Supply Co.; \$5000; plumbing and heating.  
 Automatic Machine Co.; \$1500; patented novelties.  
 Soho Iron Works; \$1000; iron works.  
 Model Baby Walker Co.; \$5000; wooden novelties.  
 National Roofing & Paper Nail Co.; \$100,000; paper roofing nails.  
 John G. McCoy Company; \$10,000; vinegar.  
 Park Heights Water Co.; \$25,000; water-works.  
 O'Keefe Showcase & Fixture Co.; \$50,000; showcases and fixtures.  
 Skinner Shipbuilding & Dry-Dock Co.; \$800,000; shipbuilding.  
 Highlandtown Ice Co.; \$25,000; ice.  
 Western Maryland Concrete Construction Co.; \$15,000; concrete blocks.  
 The following companies have during the same period increased their capital stock:  
 Murbach Chocolate Co.; \$3000 to \$100,000; candy.  
 John J. Kidd Lumber Co.; \$10,000 to \$30,000; lumber.  
 Chesapeake Iron Works, \$15,000 to \$50,000; structural iron and steel.  
 J. E. Smith Company, \$5000 to \$10,000; paper boxes.  
 Central Metal & Supply Co., \$75,000 to \$100,000; metals and supplies.  
 Miller Fertilizer Co., \$150,000 to \$170,000; fertilizers.

#### BALTIMORE'S DOCK DISTRICT.

##### Another Advance Marked in Its Improvement.

Another advance in the rehabilitation of the dock district of Baltimore, which was burned in the fire of 1904, is marked by the announcement that the municipal Board of Awards will receive proposals until April 25 for the construction of a stone and timber bulkhead extending along the south side of Pratt street from Light street to West Falls avenue.

This bulkhead will provide for the widening of Pratt street to 126 feet, which will give ample facilities for the great amount of traffic which will use this street when the six new piers are completed. As previously mentioned, the contract for the construction of three of these piers was awarded to the Degnon Contracting Co. of New York, and construction work on them was started March 1 and they are to be completed by September 1, 1907, at which time the construction of the three remaining piers and docks will be started. This was done in order not to interfere any more than possible with the shipping interests.

The amount of work involved and the quantity of materials to be used in the construction of the Pratt-street bulkhead is shown in the following approximate bill of quantities: Excavation above mean low water, 3600 cubic yards; yellow-pine piles, 1300; yellow-pine timber in foundations, 506,500 feet B. M.; white-oak timber in fenders, 16,790 feet B. M.; masonry, 880 cubic yards; concrete, 58 cubic yards; coping, 1388 lineal feet; iron (exclusive of shoes), 1740 pounds, and tree-nails, 11,320.

The plans and specifications covering this work were prepared by Major N. H. Hutton, harbor engineer, who will also superintend the construction work.

The Merchants and Manufacturers' Association of Floyd county, with head-

quarters at Rome, Ga., has perfected organization with Messrs. Nevy King, president; J. L. Bass and M. G. McDonald, vice-presidents; W. J. West, treasurer; J. P. Bowie, W. J. Griffin, S. A. Marshall, B. F. Hughes, H. P. Meikleham and J. D. Hanks, executive committee.

#### American Trade With Cuba.

##### Editor Manufacturers' Record:

The great work you have accomplished for the South and are accomplishing for it is appreciated by all patriotic men of all sections, and a field of greater usefulness has never been entered than your present efforts to arouse interest in Cuba and closer commercial relations with the island. In a modest way I have for years sought to arouse interest in this commerce, the most potential factor in the development of our Southern ports and Southern commerce. Before the trade bodies of Atlanta, Macon, Rome and other cities I have presented statistics of this commerce, the most marvelous record in all commercial history. Now I feel the movement is in good hands. Don't let John Bannon come back until he has visited Porto Rico, Central America, South America and Mexico. Teach the people the truth of history, namely, that of all commerce from the colonial days until now there is none which has exercised so vital influence. Stephen Goodyear built and equipped the first ship in the West India trade in 1647 from the New Haven colony. It was a successful financial venture, and made New Haven a commercial success. Stephen Girard's vast fortune for his time, \$9,000,000, was founded mainly upon this trade. The trade was a large factor in Boston's growth. The great fortunes and great philanthropies of Baltimore are largely founded on this trade. It is far greater today than at any time in this country's history. Yet this trade is in the infancy of its development. Within five years the trade of Cuba with the United States will exceed \$200,000,000.

From 1903 to 1905 the export commerce of the United States in agricultural implements declined \$831,000, about 4½ per cent. In the same period the United States exports in the same articles to Cuba increased \$160,000, a gain of 190 per cent. There was a total gain in the same years of 25 per cent. in all exports of books, maps and engravings, and of 200 per cent. in such exports to Cuba. Other comparisons of the same period were as follows: Broadstuffs, total gain 24 per cent., gain to Cuba 90 per cent.; wheat flour, total gain 20 per cent., gain to Cuba 33¼ per cent.; bicycles and parts of toys, total gain 30 per cent., gain to Cuba 130 per cent.; passenger and freight cars, total gain 25 per cent., gain to Cuba 80 per cent.; bituminous coal, gain less than 3 per cent., gain to Cuba 200 per cent.; cotton cloths, total gain 140 per cent., gain to Cuba 300 per cent.

All of this commerce is within but two days' steaming from the South Atlantic and Gulf ports.  
 C. P. GOODYEAR.  
 Brunswick, Ga.

Automobilists of the South in connection with the Atlantic-Pablo Beach races in Florida next week will consider the much-talked-of plan of the construction of a good hard road from Richmond, Va., to Jacksonville, Fla. The Savannah Automobile Club has already commenced planning for the building of a road from Savannah to Jacksonville, and if the Florida people build the talked-of road from Jacksonville to Miami, over 400 miles in length, the day may be nearer to us than it is thought it is when the automobilist can drive from New York city to Miami. This would give nearly a 1500-mile run.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

#### NORTH CAROLINA DEAL.

##### Big Consolidation of Railroads, Saw-Mills and Timber Lands.

Official information received by the MANUFACTURERS' RECORD confirms the press reports of the consolidation of the Virginia & Carolina Coast Railway, the Norfolk & Southern Railroad and the various lumber companies connected therewith. This combination will also include the Atlantic & North Carolina Railroad, and will have a total of 600 miles of railway and 600,000 acres of timber land containing 4,000,000,000 feet of timber. The lumber companies included in the proposition are the John L. Roper Lumber Co., the Blades Lumber Co. and the Belhaven Lumber Co. The Norfolk & Southern Railroad will retain its name and will handle the railroad end of the proposition, carrying out, it is expected, all the construction proposed by the Virginia & Carolina Coast Railroad Co. excepting the line from Columbia to Pamlico Sound, but it will take in the new railroad from Raleigh to Washington, N. C., known as the Raleigh & Pamlico Sound Railroad, and which is now being built.

The capital of the new company which is to control the consolidation will be \$25,000,000 in common stock, and there will also be an issue of \$25,000,000 of bonds. The underwriting is all taken. It is reported that George W. Roper will be president of the Consolidated Lumber Co., and that F. S. Gannon will be president of the railroad company. He is now vice-president of the Norfolk & Southern and of the Atlantic & North Carolina.

The lumber end of the enterprise will have 14 saw-mills and 4 planing mills at various points. They have a combined annual output of from 125,000,000 to 150,000,000 feet, which is to be increased to 200,000,000. It is reported that the Schuette Lumber Co. will also be included.

This combination of railroads and lumber companies covers the eastern part of North Carolina from Norfolk and Suffolk, Va., to Beaufort, N. C., and touches Elizabeth City, Edenton, Newbern, Bayboro, Mackey's Ferry, Belhaven, Plymouth, Washington, Goldsboro, Morehead City, Columbia and Raleigh, N. C. The existing railroads included in the combination are the Norfolk & Southern, 223 miles; the Atlantic & North Carolina, 95 miles; the Suffolk & Carolina, 73.5 miles; the Pamlico, Oriental & Western Railroad, 17.5 miles, while the lines to be built will increase the total to 600 miles. Marsden J. Perry of Providence, R. I., is president of both the Norfolk & Southern and the Atlantic & North Carolina railroads. J. T. Odell of New York is president of the Virginia & Carolina Coast Railroad, which controls the other two lines named.

It is said that the Norfolk & Southern will build an eight-mile trestle-work across the Albemarle Sound from Edenton to Mackey's Ferry to avoid the continued use of the ferry now existing there. Engineers are now making a survey for the bridge, which will be across water not more than 17 feet deep. Grading has been finished for a new line from Mackey's Ferry to Columbia, and surveys are under way for other extensions.

#### Railroad to Iron Mines.

Information received by the MANUFACTURERS' RECORD from Pittsboro, Va., says that Mr. J. H. C. Barr, who has been building a narrow-gauge road two and one-quarter miles long into his extensive hematite iron-ore properties expects to have it in operation for the shipment of ore about



April 15. He has built a washing plant and has developed the ore lands.

### WHEELING'S NEW DEPOT.

#### Improved Facilities for Handling Trains—Some Heavy Masonry Work.

Mr. C. E. Sudler, engineer for the Hoover & Kinnear Company, contractors, of Columbus, Ohio, writes from Wheeling, W. Va., to the MANUFACTURERS' RECORD concerning the contract with the Baltimore & Ohio Railroad for work at Wheeling. He says:

"The improvement is in the nature of a new line through the business section of Wheeling. At present trains from the West head into the passenger station, but then have to back out and pull up an extremely heavy grade for several blocks through the busiest section of the city, and the tracks are on the street grade. The new work will start five or six blocks below the present depot, and from there the tracks will be elevated gradually so as to cross the principal streets overhead. This will give the railroad considerably better grades and cut out the grade crossing through town.

"In connection with this a very handsome new railroad station will be built a few blocks east of the present location, where it will be much more accessible and very much larger than the present depot. Retaining walls will be built along the banks of the mouth of Wheeling creek for the purpose of giving increased yard room, and it is also probable that more tracks will be laid across the creek for the same purpose. The tracks and depot will be built so that trains may go through without backing in or out of the depot.

"Our contract is for the masonry and substructure work for about 3000 feet of elevated track. It includes double retaining walls of masonry for about 1600 feet, masonry abutments for three street crossings, retaining walls along the creek for about 300 feet, some seven or eight large piers about 45 feet high to carry spans for tracks over the creek, besides numerous pedestal piers, the lowering of several streets and construction of retaining walls for same and the opening of one or two new streets.

"This improvement will, of course, give Wheeling much better railroad facilities in every way, and at the same time be the means of getting rid of a great many unsightly little shacks which now abound in this district of the town.

"The work is under Mr. A. M. Kinsman, engineer of construction of the Baltimore & Ohio Railroad, Baltimore, Md., Mr. E. S. Curtis being the district engineer in direct charge."

### CHANGED ITS NAME.

#### Georgia Coast & Piedmont Is New Title of Darien & Western.

Mr. H. D. Emerson, vice-president and general manager of the Darien & Western Railroad Co., writes the MANUFACTURERS' RECORD from Savannah, Ga., as follows:

"The Darien & Western Railroad Co. has changed its name to Georgia Coast & Piedmont Railroad Co. Contracts have been entered into by which it will lease and operate the Reidsville & Southeastern. This will give it a continuous line from Darien, McIntosh county, Georgia, through McIntosh and Liberty counties to Collins, Tattnall county, Georgia. We also propose to run a regular boat line from Darien to Brunswick, a distance of 40 miles, which will make the total line from Brunswick to Collins 125 miles. We have in operation two branches, one from Crescent to Belleville, two miles long, and one from Hilton Junction to Foxtown, three miles long, so that we will have in operation within 60 days a line 130 miles long.

At Collins we will connect with the Seaboard Air Line and with the Stillmore Air Line, which gives us connections into middle Georgia.

"The Darien & Western a year ago operated 21 miles of road and had two locomotives, three passenger cars and no freight cars.

"The Georgia Coast & Piedmont now has 9 locomotives, 7 passenger cars (6 more under contract), 65 freight cars and about 100 more under contract.

"The earnings of our railroad have more than doubled, figuring on a mileage basis. The towns tributary—Ludowici, Glennville, Reidsville, Collins and Darien—are all growing, and we are satisfied that Southeastern Georgia is now wide awake and that it will soon be as productive as any other section of the developing South."

### KNOXVILLE & EASTERN.

#### Ryan, Blair and Associates Supposed to Be in a New Proposition.

The Knoxville & Eastern Railway Co. has been organized at Knoxville, Tenn., to build a line from a point at or near Knoxville through Knox, Granger and Hawkins counties to a point near Yuma, Va., via Moccasin Gap, a distance of about 100 miles. The general direction of the road is parallel to the Holston river. Surveys have not yet been made. The incorporators are Wm. M. Epps, J. Cal Sterchi, Noland Willard, J. Wylie Brownlee and Henry G. McMillan, all of Knoxville.

Considerable interest attaches to this proposition because it runs through practically the same territory as the proposed Holston River Railway, chartered in January to build to Moccasin Gap, and which is supposed to be backed by the Louisville & Nashville Railroad. While nothing definite is known, it is surmised that interests concerned in the South & Western Railway and the Seaboard Air Line are behind the Knoxville & Eastern.

### New Equipment.

The Queeny & Crescent system has awarded contracts for 5000 freight cars thus: 250 steel hopper cars of 100,000 pounds capacity to the Pressed Steel Car Co., 1000 wooden box cars of 60,000 pounds capacity to the Mt. Vernon Car & Manufacturing Co., 1250 wood hopper cars of 60,000 pounds capacity to the Barney & Smith Car Co., 500 coke cars of 60,000 pounds capacity and 500 flat cars of 80,000 pounds capacity to the Western Steel Car & Foundry Co., 1000 wooden box cars of 60,000 pounds capacity and 500 drop-bottom gondola cars of 80,000 pounds capacity to the Pullman Company.

The Louisiana Railway & Navigation Co. has given a contract to the American Car & Foundry Co. for 250 coal cars and 250 box cars.

Reported that the White Oak Railway of Macdonald, W. Va., will purchase 1000 steel hopper-bottom coal cars and 1000 combination wood and steel hopper-bottom coal cars of 100,000 pounds capacity. S. Dixon of Macdonald, W. Va., is general manager.

The Illinois Central Railroad has given an order for 400 Hart convertible cars of 80,000 pounds capacity to the Rodger Ballast Car Co. They will be built by the American Car & Foundry Co.

The Atlanta & West Point Railway has, it is reported, ordered from the Louisville & Nashville Railroad 180 cars, which will be built at the Decatur shops. This includes 55 box cars of 65,000 pounds capacity, 50 drop-bottom coal cars of 80,000 pounds capacity, 50 flat cars of 80,000 pounds capacity and 25 furniture cars of 65,000 pounds capacity.

The Atlantic Coast Line is reported to

have given a contract to the Harlan & Hollingsworth Company of Wilmington, Del., for 40 passenger cars. The railroad company is, furthermore, to receive in May 2000 steel underframe box cars of 60,000 pounds capacity from the South Baltimore Steel Car & Foundry Co. The Coast Line has also ordered 27 10-wheel freight engines and 20 6-wheel switching engines from the Baldwin Locomotive Works, the former to weigh 155,000 pounds each and the switching engines 110,000 pounds.

The Pennsylvania Railroad Co. has given an additional order to the Baldwin Locomotive Works for 100 heavy freight engines, all to be delivered by October next. The railroad had previously ordered 200 more Baldwin engines, also for 1906 delivery.

The Washington, Baltimore & Annapolis Electric Railway Co. has ordered 2100 tons of 80-pound steel rails from the Carnegie Steel Co. for its line between Baltimore and Washington, contract for which is let. The company has just been granted its terminal franchise in Baltimore.

### NORFOLK TERMINALS.

#### A Union Plan to Cost Several Millions and to Give Quick Service.

According to a report from Norfolk, Va., the Atlantic Coast Terminal Co., chartered there several months ago, proposes to spend more than \$5,000,000 for freight and passenger terminals not only for steam railroads, but for electric railroads as well, on the property known as the "Swimming Point Flats," near the Naval Hospital.

The design is said to be for quicker service in the exchange of passengers between Norfolk and Portsmouth by a ferry located on this property, which will have a landing directly opposite.

The president of the Atlantic Coast Terminal Co. is J. W. Perry, and the vice-president is W. W. Moss, president of the Citizens' Bank, both of Norfolk.

### Minden to Shreveport.

President F. H. Drake of the Minden East & West Railway Co. writes from Minden, La., to the MANUFACTURERS' RECORD confirming the report that the company has been chartered and saying that the directors are as follows: F. H. Drake, president; R. H. Miller, vice-president; W. W. Reeder, secretary and treasurer; T. Chichon and S. G. Webb, all of Minden, La. About five miles of this road has been built standard gauge and laid with 60-pound new steel rail. It is being operated to Melrose, which is the first station on the line. It runs through several miles of timber land, and the remainder of the country westward from Minden to Shreveport, La., is fine farming country. It is the intention of the company to push construction on to Shreveport as fast as practicable on a grade of 1 per cent. The traffic now being hauled into Minden is mostly lumber, but the rest of the line will furnish cotton and other farm products as freight.

### New Orleans Great Northern.

Messrs. Fisk & Robinson of New York announce that through an agreement with the New Orleans Northeastern Railroad Co. the New Orleans Great Northern Railroad will enter New Orleans over that company's tracks and also have the use of both freight and passenger terminals within the city. The agreement extends over a period of five years from June 1 next.

The surveys for the main line have been completed from Slidell to Smith's Ferry, a distance of about 101 miles. There is on hand the amount of 80-pound rail, fastenings, etc., necessary to complete track-laying between these points.

The force at work along the line has been increased to 500 men, with about 45 teams. This force is being further increased as rapidly as additional labor can be obtained.

### Jasper & Eastern Branch.

Mr. C. F. W. Felt, chief engineer of the Gulf, Colorado & Santa Fe Railway, Galveston, Texas, informs the MANUFACTURERS' RECORD regarding the amendment to the charter of the Jasper & Eastern Railway. He says this branch will run from Cravens to near Oakdale, La., a distance of about 28 miles. The grade will be six-tenths of 1 per cent. The line will make connection with the Kansas City, Watkins & Gulf Railway at Oakdale. The contract has been let to the Grigby Construction Co. of Dallas, Texas, and the engineer in charge is Mr. M. F. Temple, chief engineer, at Kirbyville, Texas.

### New President for Seaboard.

A press dispatch from New York says that Mr. J. M. Barr has resigned as president and general manager of the Seaboard Air Line, and will leave the service of the company on April 30; also that Mr. Alfred Walter has been elected president and will take charge when Mr. Barr retires. Mr. Walter is now chairman of the board of the South & Western Railway, which is controlled by the Ryan and Blair interests, that also dominate the Seaboard Air Line. It is further said that Mr. Barr will continue a director in the Seaboard.

### Northern Central Statement.

The Northern Central Railway Co. reports for February, 1906, gross earnings, increase, \$165,400; expenses, increase, \$65,100; net earnings, increase, \$100,300. For the two months ending February 28, gross earnings, increase, \$373,000; expenses, increase, \$118,200; net earnings, increase, \$254,800. Comparisons are made with same period of 1905.

### Augusta's Progress.

The Yearbook of the city council of Augusta, Ga., for 1905 has the mayor's message and official reports of the city departments, besides resolutions and ordinances of the city council and the report of the board of health. In his message to the council Mayor R. E. Allen said that the condition of the city finances was a source of much gratification, and it was with pleasure that he reported that this most important branch of the municipal government had been managed in a very satisfactory manner, notwithstanding the development of old departments and the organization of a number of new departments during the last two years. The floating debt of the city was reduced from \$127,906 on January 1, 1905, to \$74,000 on January 1, 1906. A city loan amounting to \$148,000 at 6 per cent. matured December 1, 1905, and was refunded at 4 per cent., the new bonds selling at a premium of \$3817 on a total issue of \$145,000. Another loan of \$39,000 at 6 per cent., maturing February 1, 1906, was refunded by an issue of \$35,000 of 4 per cent. bonds, which sold at a premium of \$1246. These two refunding operations will save the city in interest \$121,320. The mayor also notes the movement to permanently improve the Savannah river and also the decreasing death-rate in the city, which he says is as low or lower than that of any other city of its size in the South. The general balance-sheet of the city shows total assets of \$5,490,300 and total liabilities of \$1,800,497, with a surplus, being the excess of assets over liabilities, amounting to \$3,590,811. The bonded debt of the city is only \$1,742,900. The total assessed valuation is \$20,081,987, including both real and personal property, and the tax rate per \$1000 is \$12.50.

## TEXTILES

### ADDING TO SOUTHERN MILLS.

Over 190,000 Spindles Announced During January, February and March, 1906.

A decided increase in announcements for additions to Southern spindleage was noticeable during the first three months of this year, and the accompanying table, which the MANUFACTURERS' RECORD has prepared, is of interest.

The total of spindles for January, February and March is 190,652, which, estimated at \$20 per spindle for completed plants, indicates an investment of \$3,813,040. This is a much better record than that of any quarter period of 1905, being nearly 50,000 more spindles than reported for the best quarter of last year, the second, when about 141,000 spindles were reported.

The usual tendency is seen for the established mills to announce more spindles than new companies, the total for new mills during the past quarter amounting to 64,680 spindles and for the additions to old mills amounting to 125,972 spindles. That is an investment of \$1,293,600 for the former and \$1,519,440 for the latter.

It is to be understood that these figures do not represent new spindles that have been placed in position during the quarter, but they comprise equipments which the various companies have announced as to be added and the installation of which will be proceeded with at once. As a matter of fact, however, thousands of these spindles have been placed in position and most of the machinery has been contracted for, to be furnished just as rapidly as possible.

A summary of the new and enlarging mills for the first quarter of 1906 follows:

Name.	Location.	Spindles.	Looms.
*Girard Cotton Mills (\$15,000 improvements)	Girard	.....	.....
*Coosa Mfg. Co. (old spindles replaced)	Piedmont	.....	.....
<b>Georgia.</b>			
*Newnan Cotton Mills	Newnan	25,000	.....
*Pelham Mfg. Co.	Pelham	6,500	.....
<b>Mississippi.</b>			
*Laurel Cotton Mills (additional to January list)	Laurel	1,900	.....
<b>North Carolina.</b>			
Francis Cotton Mills	Biscoe	.....	.....
Harris Mfg. Co.	Charlotte	.....	.....
Brown Mfg. Co.	Concord	7,880	200
*Cabarrus Cotton Mills	Concord	17,000	.....
*Gibson Mfg. Co.	Concord	.....	500
John H. Barnhardt (braid mill)	Concord	.....	.....
J. W. Cannon	Concord	7,000	.....
Cooleemee Cotton Mills	Cooleemee	.....	.....
Monarch Cotton Mills Co.	Dallas	5,000	.....
*Sidney Cotton Mills	Graham	3,136	.....
*Dickson Cotton Mills	Laurinburg	7,000	.....
Rhodes Mfg. Co.	Lincolnton	5,000	.....
Raeferd Power & Mfg. Co.	Raeferd	5,000	.....
Hannah Pickett Mills	Rockingham	10,000	300
*Hadley-Peoples Mfg. Co.	Siler City	1,000	.....
*German-American Co. (additional to list July 1, 1905)	Spray	10,000	.....
<b>South Carolina.</b>			
*Wylie Mills	Chester	.....	.....
*American Press Cloth Co.	Columbia	1,300	.....
*Cowpens Mfg. Co.	Cowpens	5,000	150
*Mary Louise Mills	Cowpens	5,000	.....
*Limestone Mills	Gaffney	12,000	.....
*McGee Mfg. Co.	Greenville	44	.....
*Drayton Mills	Spartanburg	26,136	492
<b>Tennessee.</b>			
Wachovia Mills (capital \$1,500,000)	Chattanooga	.....	.....
Standard Knitting Mills	Knoxville	5,000	.....
Warlot Cotton Mills	Nashville	20,000	500
*Trenton Cotton Mills (\$30,000 new mch.)	Trenton	.....	.....
<b>Texas.</b>			
*Brenham Cotton Mills	Brenham	5,000	160
Total for first quarter		190,652	2346
*Established mills enlarging.			

### New England Mill Men.

At the meeting April 25 and 26 of the New England Cotton Manufacturers' Association at Boston an amendment will be submitted providing for a change of the name of that body to the National Association of Cotton Manufacturers. Among the topics to be discussed will be belt creep, care of mill help, cost of raising cotton, finishing the finer grades of cotton fabrics, increased use of cotton fabrics, industrial interdependence, mechanical stokers, pickers, reinforced concrete applied to factory construction, reminiscences of 70 years in cotton manufacturing, some export humbugs and fallacies, the influence of humidity, temperature and lubrication upon the power of textile mills, weights and measures applied to textile numbering, and wider markets for American goods.

His Honor Eben S. Draper, lieutenant-governor of Massachusetts, will welcome the association on behalf of the State. Hon. James Wilson, Secretary of Agriculture, Washington; John Smethurst, Esq., honorable secretary of the International Federation of Master Cotton Spinners and Manufacturers' Associations, Manchester, England; Frederick P. Fish, Esq., president of the American Telephone & Telegraph Co., and Henry Smith Pritchett, J.L.D., president Massachusetts Institute of Technology, will address the association.

### The American China Silk Co.

Some further facts have been obtained regarding the American China Silk Co., which was reported last week as incorporated with a capital stock of \$1,000,000. The company has for its purpose the establishment of factories for the decorticating and degumming of China silk (ramie), with the ultimate object of building mills to manufacture the finished product. This, however, will not be done until the officers have satisfied the existing demand for the raw fiber. The machinery to be used will be of a special pattern, to be constructed by the company. Officers have been elected as follows: President, H. J. Dannenbaum of Houston, Texas; vice-president, Dr. J. H. Stolper of St. Louis, Mo., and secretary-treasurer, A. D. Engelman of Oklahoma City, O. T. The offices of the vice-president and general manager are in the Oklahoma Building, Oklahoma City, where correspondence can be addressed, or to P. O. Box 656.

### Important Betterments for Trion.

Important betterments have been in progress lately at the plant of the Trion Manufacturing Co., Trion Factory, Ga. They include the installation of 11,000 modern spindles furnished by the Whitin Machine Works of Whitinsville, Mass., to replace 10,000 out-of-date spindles. Some

270 old looms are being displaced by the introduction of 287 improved looms furnished by the Draper Company of Hopedale, Mass. Five old spooler frames were replaced with Draper machinery, and a new flyer frame was furnished by the Woonsocket (R. I.) Machine Co.

These additions give the Trion Manufacturing Co. a total of 51,200 spindles and 1440 looms, producing daily about 85,000 yards of sheetings, shirtings, drills and cotton rope—sheeting from 2.85 to 6½ yards to the pound and drills from 2.50 to 5¼ yards to the pound. These improvements will probably cost approximately \$200,000.

### The Jonesville Manufacturing Co.

Last month the MANUFACTURERS' RECORD referred to the Jonesville Manufacturing Co. of Jonesville, S. C., as contemplating a doubling of its capital stock in order to build another mill. It may now be stated that this enlargement has been affirmatively decided, and J. E. Sirrine of Greenville, S. C., has been engaged as architect-engineer in charge of plans, specifications, etc. The company will increase its capital stock from \$175,000 to \$350,000. Its engineer will proceed to erect a building 100x200 feet in size, two stories high, of brick, and to install 10,000 spindles, 300 looms and accompanying apparatus, the product of the addition to be brown sheetings. About 150 additional operatives will be needed. At present the Jonesville mill spins yarns and knits hosiery. The new looms are to be furnished by the Draper Company of Hopedale, Mass.

### The Dresden Cotton Mills.

The MANUFACTURERS' RECORD referred last week to a new company projected by Messrs. R. D. Caldwell (president of the Lumberton Cotton Mills), H. B. Jennings (secretary-treasurer of same company), A. W. McLean, A. E. White and Q. T. Williams. These parties comprise the committee in charge, and Mr. Jennings is secretary. The title of the new enterprise will be the Dresden Cotton Mills, and incorporation will be applied for this week, the authorized capital stock to be \$200,000. Of this amount, \$100,000 has been subscribed, and it is planned to build a mill of 5000 spindles and possibly of 12,000 spindles.

### A \$500,000 Loom Contract.

Possibly the largest contract ever awarded for cotton-mill looms is that now announced in connection with the Dan River Power & Manufacturing Co.'s decision (of several months ago) to double its denim mill of 43,000 spindles and 1614 looms at Danville, Va., details of which were previously presented by the MANUFACTURERS' RECORD. The loom contract mentioned was obtained by Messrs. Alexander & Garsed of Charlotte, N. C., representing the George W. Stafford Company of Readville, Mass. It calls for 1100 9 and 10-quarter looms, and is reported as approximating \$500,000.

### Belton Webbing Co.

A plant will be established at Belton, S. C., for the manufacture of cotton webbing, tapes and other narrow fabrics. It will be built and operated by the Belton Webbing Co., which E. B. Rice, Jr., is organizing, and he will be president and treasurer. The company will install 2000 shuttles and a dyeing plant in connection with the weave shed. Yarns will be purchased. The company will be capitalized at \$50,000.

### Elm City Cotton Mills.

The officers of the Elm City Cotton Mills of Lagrange, Ga., have engaged A. F. Walker of Atlanta, Ga., as engineer in

charge of constructing and equipping the company's proposed plant. It is probable that 10,000 spindles will be the equipment, but this has not been fully determined. By April 15 construction work is expected to begin, and by May 15 machinery contracts to be awarded. The Elm City company was mentioned some time ago as incorporating with a capital stock of \$250,000. Its general manager is Roy Dallas.

### Seeking Cotton-Mill Details.

It is proposed to establish a cotton-manufacturing plant at Haskell, Texas, and Mr. J. E. Poole of that city is promoting the enterprise. No details have been determined, but a capital stock of from \$75,000 to \$100,000 is contemplated. Mr. Poole is desirous of corresponding with textile-machinery manufacturers and others experienced in cotton milling in reference to such details as size of buildings, number of spindles, character of product and other data.

### The Cabarrus Mills.

The Cabarrus Cotton Mills of Concord, N. C., has completed the erection of an additional two-story building 176 feet long by 100 feet wide, in which will be placed approximately 17,000 spindles, which new machinery was referred to in January as decided on. The company increases its capital stock from \$150,000 to \$300,000 in connection with these betterments.

### A \$10,000 Knitting Mill.

The Weatherford Knitting Mills has decided to establish a hosiery mill addition to its yarn plant at Weatherford, Texas. The company plans to invest \$10,000 and to manufacture fine hosiery for men and women. It is in need of expert advice and estimates on equipment of machinery.

### Textile Notes.

It is proposed to organize a cotton-mill company at Roxboro, N. C., and J. A. Long is interested.

The Elizabeth City (N. C.) Hosiery Co. is adding 3500 square feet of floor space to its mill building and 30 knitting machines to its mechanical equipment, which will increase capacity from 3500 to 4500 dozen pairs per week.

Mr. John A. Lewis and associates of Sycamore, Ala., expect to complete arrangements in the near future for the organization of company to build a cotton mill. Mr. Lewis was mentioned some weeks ago as interested in an enterprise of this character.

Manager J. L. Stroup and others interested in the Verner Oil Co. of Lattimore, N. C., will build a plant for the manufacture of jute bagging, but have not decided whether to form a separate company or operate in connection with the oil mill. A 31x90-foot building will be erected, and a portion of the machinery required for manufacturing has been purchased.

Dispatches from High Point, N. C., state that W. C. Stepp has contract to erect a modern brick and stone mill building in which will be installed machinery for silk throwing. It was previously reported that Messrs. Stehli & Co. of Lancaster, Pa., and 105 Green street, New York, were to establish a silk mill at High Point, and presumably the building mentioned is for their use.

The Standard Knitting Mills of Knoxville, Tenn., has awarded contract to Messrs. Scott & Williams of Philadelphia for 20 additional knitting machines, which will give an increased capacity of 250 dozen pairs of hose daily. The Standard company was referred to in February as having awarded all contracts for the addition of a 5000-spindle yarn mill to its knitting plant. Full details were stated.



## COTTONSEED

### SMALL COTTONSEED MILLS.

#### Some Considerations Entering Into Their Cost.

There are not a few communities in the South where cottonseed in the season appears a drug, due to the remoteness of the location from a market, which use the seed largely for stock-feeding and fertilizer purposes, the surplus being permitted to go to waste. Where sufficient seed is available to supply a small oil mill it is decidedly a mistake to use the seed for such purposes. The questions are frequently asked: How much will a small mill cost? Will it pay to run a small mill? Are there not too many mills already in the field?

The first thing to determine is the amount of seed available for sale to the prospective oil mill in excess of what will be needed for planting. Next in order it will be necessary to know just what quantity of seed a small oil mill can crush in a season. A one-press mill can work from 1500 to 2500 tons of seed in a single season, the method of operations and size of the press having much to do with the quantity used. By taking the one-press mill as a unit it is easy to figure out what a three, four or six-press mill can handle.

The location which can control, say, 1500 tons of seed is warranted in establishing an oil mill. The full value of the cottonseed can be realized in this way only. It is sheer waste to dispose of this valuable material for stock and fertilizer purposes when it is possible to convert it into marketable products in constant and increasing demand and for which substantial returns under normal conditions are assured. The planter receives nothing for the oil and lint in his seed when fed to stock. The value of these products are lost to him, the condition being further aggravated by the fact ascertained not only by scientists, but also by the farmers themselves, that the seed fed to stock damages them. On the other hand, stock fed with meal and hulls, from which in the manufacturing processes the lint and oil have been secured, fatten and thrive uniformly, while the market value of meal is higher than that of cottonseed, an additional argument in favor of meal and incidentally of the benefits accruing from the operation of an oil mill. In using seed as a fertilizer the oil and hulls are in like manner lost to the farmer. It is therefore palpable that in communities where seed is available in quantity sufficient to meet the requirements of an oil mill, used for any other purpose is waste of the most prodigal character.

Small mills pay probably better than large ones. It is easier to control conditions in running a small mill, and there are many features in favor of latter. Heavy stocks of seed need not necessarily be carried, which is unavoidable in a large mill, thus lessening the danger of heating. Regarding the bearing a location has on the possibilities of success in conducting an oil mill, a well-known oil-mill mechanical engineer has this to say: "The mill that always pays is the one that buys the seed from the farmers' wagons and sells the meal and hulls directly to the consumers, saving the freight both ways." This is the sensible and practical way of looking at it. The oil can pretty nearly be figured upon as being sold before it is made.

For further guidance of those interested in this subject it is opportune to say one ton of good seed will yield 40 gallons of oil, 750 pounds of meal, 25 pounds of short lint and 850 pounds of hulls. The price per ton of seed is readily established, and the market prices of the manufactured goods are as easily available.

The cost of working a ton of seed at the maximum figure is \$3, and where labor and fuel are cheap it has been done at \$2 per ton. The engineer previously quoted says further: "A small mill, if properly constructed, makes as much oil from a ton of seed as a large one. There is no doubt that the small oil mill, located near the seed supply, is the mill of the future." The tendency is clearly in this direction, and natural conditions foster it.

By carefully studying the foregoing synopsis of oil milling, taking into consideration the initial cost of installing a plant, a fairly accurate idea can be established of the returns from capital invested in the business of making cotton oil and meal.

JOHN BANNON.

### Interstate Cottonseed Crushers.

Mr. A. E. Thornton, president of the Cottonseed Crushers' Association of Georgia, has appointed for the annual convention at Atlanta May 15, 16 and 17 of the Interstate Cottonseed Crushers' Association the following committees:

Arrangements—L. A. Ransom, chairman; W. A. McCarty, R. S. Patillo, L. G. Neal, M. S. Harper, C. U. Dahlgren.

Invitation—E. P. McBurney, chairman; E. R. Ravenel, J. H. Taylor, T. B. McDowell, R. A. Kelly, H. O. Williford, P. D. McCarley.

Finance—Julian Field, chairman; M. R. Wilkinson, G. O. Haskell, Fielding Wallace, F. J. Cooledge, E. F. Lanier.

Entertainment—Thomas Egleston, chairman; Mitchel King, Austell Thornton, H. Bussey, Julian Field, H. C. Brown.

Reception—J. L. Benton, chairman; S. A. Corker, John Bostwick, J. H. Walker, W. M. Hutchinson, W. C. McBride.

Program—J. A. Aycock, chairman; R. G. Riley, J. L. Hand, J. H. Fulford, W. W. Abbott, S. W. Yow.

The convention, representative of more than \$100,000,000 invested in the business of about 800 cottonseed-oil mills, is expected to have an important bearing upon efforts to check influences retarding the growth of the industry on the one hand, and on the other to create a wider home market for the finished products of cottonseed oil.

At one time last week 20 trains of 30 cars each were unloading cottonseed meal and cake upon five large steamers at Galveston for export.

### Promoting Fertilizer Factory.

Subscriptions are being received for the stock of the Planters' Fertilizer & Phosphate Co. of Charleston, S. C., recently incorporated with a capital stock of \$350,000. It is proposed to erect a fertilizer plant to have a capacity of 30,000 tons, and construction work will be inaugurated when the stock of the company has been subscribed and details of organization completed. A site has been secured on the Kinsman farm for the erection of the plant, which will be provided with transportation facilities both by water and by railway lines constructed into the works from the lines of the Atlantic Coast Line and Southern Railway. The company has acquired valuable tracts of phosphate land, the river rock, it is stated, to be furnished by the Stono Mining Co. It is expected to have the plant in operation by October.

The Nashville (Tenn.) Board of Trade endorsed last week a plan for the organization of a \$200,000 industrial formation corporation to encourage the building up of industries in the city.

The Commercial Club of Fort Mill, S. C., has elected Messrs. J. W. Ardrey, president; J. Lee Spratt, vice-president; C. S. Link, secretary, and S. L. Leacham, treasurer.

## MINING

### Middle Tennessee Marble.

#### Editor Manufacturers' Record:

In the development of the South this immediate section of middle Tennessee, so rich in natural resources, has been overlooked by investors.

From a geological viewpoint this, Franklin county, is composed of three divisions—the Cumberland mountains, the flat woods or level plain, and the hills. The hills are situated along the course of Elk river, being cut into numerous ridges by the small tributaries of said river.

The Cumberland mountains in this county carry two workable seams of coal, of a bituminous variety, of a high grade both as a domestic and a coking coal.

Extensive deposits of fluorite and other varieties of lime abound in many parts of the mountains, and fine outcroppings of iron, both hematite and brown ores, exist in many places.

It has long been known locally that the hills of the county contain extensive deposits of high-grade marble, varying in color from a very light drab to almost black, including red, pink, green, gray and brown. It is a shell marble, and is comparatively free from silicon.

The cornerstone of the University of the South at Sewanee, laid years ago, was a block of marble obtained from these deposits, and was of such exquisite beauty that it was broken up and carried away as souvenirs by soldiers during the occupancy of the grounds by federal troops during the war.

But, for the lack of capital and enterprise, the property has remained entirely undeveloped. Last year, however, a local company acquired title to about 1000 acres of the most valuable of the marble lands with the view to interesting capital in their development. This property lies on two small creeks, tributaries of Beans creek and Elk river. The creeks are simply chasms eroded through solid marble, showing a thickness of from 75 to 150 feet.

Economically the marble is so situated that it can be quarried by channeling into the hills from the level of the creek beds and perfect drainage afforded at all times, thus making the quarrying much less expensive than quarries that have to be worked from below the surface level.

In prospecting this property I caused to have numerous samples finished in the way the market demands, and in each instance highly satisfactory results were obtained. It is very compact, highly crystallized, and, while no analytical tests have been made, yet numerous slabs of the marble are to be seen in the local cemeteries that have withstood the elements for more than 30 years, still retaining their original fine finish and remaining in as perfect state of preservation as stones from the most famous quarries.

From other tests I caused to have made it is shown that this marble is equal in breaking strength to any in the United States. For building and decorative purposes the marble is, in my opinion, unexcelled. Located as it is near the Nashville, Chattanooga & St. Louis Railway, giving an outlet to the Northern market, and within 30 miles over same road to the Southern Railroad, an outlet to the markets of the South and East, there is every reason to believe that with sufficient capital and under proper management this marble would be more profitable and popular than any marble quarried in the South.

J. W. LOWMAN.

Winchester, Tenn.

### Coal Mines Purchased.

The Imperial Coal & Coke Co., recently organized, is reported to have acquired the coal mines at Bradford and Dixieanna, in

the northern part of Jefferson county, Alabama, together with 103 coke ovens at Bradford. The property is located about 18 miles north of Birmingham on the Birmingham Mineral Railroad, and is said to have been purchased for \$106,000. It is understood that the Imperial Coal & Coke Co. will continue active work at the mines already in operation, beside making new developments.

### Developments at Ensley.

Commenting upon the progress of industrial development in his section and alluding more particularly to the operations of the Tennessee Coal, Iron & Railroad Co., Mayor N. W. Scott of Ensley, Ala., is quoted as saying:

"One not familiar with the things being done in Ensley and this section has no idea of the developments that are being made.

"The new engine that has just been put in commission in the steel plant is a monster, and one of the finest and most powerful of the kind in the South. It has a capacity of double the present requirements of the mill, and leads to the conclusion that this department is to be greatly enlarged in the near future.

"The work of rebuilding and enlarging the furnaces in the furnace department is being pushed as rapidly as possible, and, in fact, some sort of improvement is in progress in some part of the Tennessee Coal, Iron & Railroad Co.'s plant all the time. Every department is in full blast and making fine records in the output of its products, and in every department the work of enlargement and improvement is constant and surprising to those not familiar with the facts.

"For about a month a large force of men has been at work opening a new coal mine for the Tennessee Company at Booker City, about two miles north of here, that will be one of the largest and best in the South. It is said that the vein of coal at this place is unusually fine.

"A large shaft is to be sunk more than 700 feet before this work of actual mining begins, and I understand that the equipment for handling the output will be the best in the South. A complete electric plant is to be installed for power and for lighting the mine.

"There is also considerable activity in all the other plants located here, and I feel confident that this year will show more real progress in the district than any previous year.

"The work of rebuilding and equipping the nail mill of the Southern Steel Co.'s plant, which was destroyed by fire some time ago, is progressing well, and will be ready for operation again about May 1."

### Mining Notes.

Clay deposits in the Birmingham (Ala.) district are attracting more than ordinary interest at this time, and Secretary J. B. Babb of the Commercial Club of Birmingham has received recent inquiries concerning them.

The Elk Valley Coal Co., composed of capitalists of Connelville, Pa., has formally organized by the election of the following officers: Messrs. Lloyd Johnson, president; J. D. Frisbee, vice-president; F. A. Kail, treasurer, and C. D. Patterson, secretary. The company is said to own more than 6000 acres of coal lands in Braxton and Clay counties, West Virginia.

The Chesapeake Steamship Co. announces that on Monday, April 9, the daily service of the York River Line between Baltimore and West Point and Richmond, Va., will be resumed.

The Greater Charlotte Club of Charlotte, N. C., is planning to circulate 50,000 small pamphlets in advertisement of the city.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### Slack-Cooperage Woods.

According to estimates, 300,000,000 barrels are manufactured every year. Of these, probably the greater number are used to hold solid contents, such as flour, lime, farm products, etc., and are called slack barrels as distinguished from tight barrels, which are used for fuel fluids. The forest service has made a study of woods used for barrels, and finds that woods suitable for slack cooperage are commoner and cheaper than those used for tight barrels. Nevertheless, slack barrels of the better grade, notably flour barrels, require material which, like elm, is rapidly becoming scarcer. With the enormous drain on supplies, manufacturers are already feeling the need of economizing in the use of the rarer woods and of finding serviceable substitutes among those more plentiful.

In the past the cooperage industry has culled the best large trees on hundreds of thousands of acres of forest, from which it cannot again obtain material for a long period. Moreover, the amount of wood discarded in slack-cooperage manufacture is necessarily very large, ranging from 45 per cent. of the timber in staves to 74 per cent. in headings. This discarded wood is in large part not usable for cooperage, but some of it could, in many cases, be used for the manufacture of small dimension stuff and other similar products. Here again, as in the case of lumbering, lumber manufacture and woodworking industries in general, the question of the utilization of waste assumes prime importance. The necessary consumption of all wood products not only must continue, but must continue to grow, and conservation of resources must largely take the form of substituting use for waste. To convert the great waste of the slack-cooperage mills into salable products, and thus to restrain needless forest destruction, merits, therefore, careful study.

Manufacturers of slack-cooperage woods are well aware, from their long experience, of the difficulties which beset their business, and are ready to profit by any principles which a broad study of its conditions may bring out. The United States forest service has taken up the subject, with a view to ascertaining what improvements and economies in manufacture are practicable; what woods can be added to the present list of cooperage woods; what woods are best adapted for each purpose in cooperage, and what are the amounts of wood consumed in the industry.

A preliminary study of slack-cooperage problems has already been completed for the North Central, Central and some of the Eastern States. This has served to suggest several lines of special investigation which are to be taken up in turn by the service, and, in addition, has brought out in some detail the requirements which cooperage woods must fill.

For barrel staves the best woods are those which are pliable, strong, clear of imperfections, of light weight, and preferably of bright appearance. In the best grades of barrels, such as flour barrels, staves combining all these requisites are demanded. Elm is one of the few woods now used which possess them. Where foodstuffs liable to be tainted with a foreign flavor are packed, as in the case of butter, none but tasteless woods are suitable. These requirements narrow the choice of woods to such species as spruce and white ash for butter tubs and white pine for brine and pickle packages.

Hoops for slack barrels are of three kinds—"patent" hoops, made by cutting

up sawed boards of elm; "racked" hoops, made by splitting black ash, and "half-round" hoops, made by dividing young saplings of such tenacious woods as hickory, birch or beech. The fancy for split saplings, which still prevails, is believed to be largely due to prejudice. The attempt to substitute wire hoops for wooden ones on slack barrels has been successful thus far only as regards the "bilge" or central hoop; the end hoops need to be of wood in order to protect the thin ends of the staves.

Barrel headings, as well as staves and hoops, have their peculiar requirements. A good heading must be light, must retain a tight joint, must be sound, smooth, without warp, bright looking and thoroughly dry. Basswood is one of the species preferred for this use.

Among the special problems which confront slack-cooperage manufacture is that of the best means of drying the wood for each specific purpose. Kiln drying, though widely used, has not been entirely successful, and the same is true of air drying and piling methods. The warping of wood in drying, and, still more, mold, cause much difficulty and stand in need of exact investigation. Another problem is the more accurate determination of the pliability and strength of different woods. What is needed is not to multiply the available woods for products of the inferior grades, since these are not profitable, but rather to discover new material for the better ones, or, at least, if this be impossible, to develop the use of the present leading woods to the point of the highest efficiency and economy.

It is the design of the forest service to prepare a publication dealing with the conditions and problems of cooperage manufacture. This publication will discuss the woods used for the different branches of the industry in the States visited and the properties of wood required for the different slack-cooperage products, and will present statistics of the number of staves and hoops and sets of heading turned out in 1905 by grades, species and States.

### Large Saw and Planing Mill.

It is reported from Dothan, Ala., that the Gordon Lumber Co. has been incorporated with a capital stock of \$200,000 and will establish a saw and planing mill near Gordon, Ala., to have capacity of 50,000 feet per day. The company has purchased the timber holdings of Messrs. R. M. Hearn and J. J. Whisnant, and will facilitate the development of the properties by the construction of a railroad about 25 miles south, work on which has already begun. Officers and incorporators of the Gordon Lumber Co. are Messrs. J. W. Carpenter of Scranton, Pa., president; G. C. Raught, Nicholson, Pa., vice-president; S. N. Simrall, Scranton, secretary and treasurer. R. M. Hearn has been appointed general manager, and George J. Trexall, local secretary and treasurer.

### Big Naval-Stores Business.

The turpentine year for 1905-1906 has just been completed. In the Savannah (Ga.) district it is estimated that the gross receipts have been greater than for previous years, owing to the increase in prices. In commenting upon the unusual conditions that prevailed during the season just ended and the prospects for the coming season, a member of the J. P. Williams Company of Savannah is reported as saying:

"The beginning of the present season witnessed a condition which had never before existed in the naval-stores business. A great exporting company, composed largely of producers and factors, was in process of formation. The entrance of this company into actual business brought

about the highest prices for spirits of turpentine known in several decades.

"The prices for rosins have been satisfactory, especially the supply to the lower grades. The value of old rosins has brought into operation again numerous places in the Savannah district which could not be worked a few years since or before the present range of value of low-grade rosin has been in existence.

"As for the size of the crop for the season just opening, preparations have been made for a crop nearly if not quite as large as that of the season just closing. But labor conditions are going from bad to worse, and the world's consumption of both spirits and rosin is increasing all the time, and from a producer's and factor's standpoint there is nothing to fear."

### Georgia Interstate Saw-Mill Men.

At a meeting of the Georgia Interstate Saw-Mill Association at Valdosta, Ga., last week members reported that business already booked was sufficient to keep the mills employed about 60 days without receiving more orders. The association, acting upon a recommendation of the price committee, decided not to make a further advance of prices, but reaffirmed the present list on coastwise and interior trade. It is stated that export trade on the coast is improving, but members are still experiencing difficulty with a car shortage. The president of the association was instructed to appoint delegates to the annual meeting of the National Lumber Manufacturers' Association at St. Louis May 8 and 9.

### Big Timber Deal.

Dispatches from Meherrin, Va., state that Pennsylvania capitalists have purchased the entire timber holdings in Lunenburg county of the Blackstone Lumber Co. for a consideration of \$250,000. Much of the timber is located on the Notoway river and will be developed as soon as facilities can be had. For this purpose it is stated that a modern saw-mill plant will be erected.

The steamer Dalarne, under charter to F. E. Howard Newcombe of Lake Charles, La., has arrived at Sabine, Texas, and is loading 2,000,000 feet of lumber. Mr. Newcombe is also shipping lumber from Port Arthur, Texas, to Liverpool by the steamer Greenbank. Exporter C. B. Wilcox is making shipments of lumber by the steamer Stanhope and the barks Linnea, Edouard and F. S. Hampshire.

Consul Jackson of Alexandretta writes that prior to 1905 all the petroleum used in Syria was from Russia, but that since July 13 of last year 315,000 gallons had come from America, or over one-third of the total amount imported. Complaints were made about the inferior quality of the first shipments of American oil, but later shipments are superior even to the Russian oil. Quality wins out in this competition. The retail price is now 15 cents per gallon. The importations of petroleum at the ports of Mersina and Alexandretta for the year 1904 were 2,436,660 gallons, valued at \$305,600.

An interesting and suggestive paper by Mr. William L. Price on the possibilities of concrete construction from the standpoint of utility and art has been published as Bulletin No. 2 of the Association of American Portland Cement Manufacturers, Philadelphia.

The Board of Trade of Front Royal, Riverton, Va., has issued a circular primarily in promotion of the location there of the State Female Normal School, which incidentally tells of many advantages of that locality of interest to others than educators.

## FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

### American Clothes in Italy.

Giovanni Tosi, No. 32 Corso, Magenta, Milan, Italy:

"The reputation of American goods, especially clothes, is becoming greater and greater among the better element of the Italian population, and I am led to the belief that direct importation of finished American clothes would probably be as profitable as the importation of American shoes, which has already proved successful. I am aware that the cost for the Italian buyer would be greater than that of clothes made in Italy, but, on the other hand, I am sure that all those who care to have an American appearance, and they are very numerous, especially among young people, would easily submit to higher prices. I should, therefore, be very glad to get into communication with a New York firm which will agree to try such a business through my house acting as agency. Of course, the goods would have to be sent only against cash payment or reimbursement by a firm of standing, delivering goods of first quality."

### Openings in Mexico.

L. M. Rodriguez, Leon, Guanajuato, Mexico:

"Mr. L. S. Aguilar of this city, No. 11 Pachacas street, would like to reach manufacturers of farm wagons and agricultural implements.

"Mr. Gilberto Rocha of this city is interested in getting in touch with American manufacturers of musical goods, particularly harmonicas, and of novelties in the toy line.

"I suppose you realize the fact of the great demand for American commodities in Mexico, Cuba, Porto Rico and Panama."

### Leather Goods at Milan.

Venusto Conti, No. 12 Via Olmetto, Milan, Italy, writes to the MANUFACTURERS' RECORD:

"I wish to represent American firms handling leather for purses, card cases, traveling goods, boots and shoes, book-binding and linings of motor cars, carriages etc., and also metal fastenings for such goods."

### Machine Oils for France.

Simon Jourdan & Co., manufacturers' equipments, Certe, France:

"I desire to represent here as agent some American exporter of mineral machine oils, and I shall be most happy to have samples and prices sent me.

### Bent Motor-Car Seats.

H. Zornow, Altoona (Elbe), Germany: "I am in want of bent motor-car seats of American origin and of wood-bending machines to make these seats."

### Car-Wheel Plant for Savannah.

There will be a large car-wheel foundry established in Savannah, Ga., by the Decatur Car Wheel & Manufacturing Co., the well-known manufacturer which has its main offices at Birmingham, Ala. A site has been purchased for the Savannah plant and the foundry will be built and equipped for an initial capacity of 200 car wheels daily, with provision for enlargements at a minimum expense whenever a demand warrants such improvements. It is stated that the site comprises about 10 acres, and that approximately \$200,000 will be the cost of the plant. Construction work is to begin at once.



# SOUTHERN COTTON ACREAGE PROSPECT FOR 1906

Conflicting reports earlier in the year from different parts of the South about the plans of cotton-growers for the coming season, reports based apparently upon desire rather than upon knowledge, suggested to the MANUFACTURERS' RECORD that the bankers of the South, in close touch as they are with sources of accurate and detailed information on this point, might repeat the eminent service they rendered their section and cotton interests generally about a year ago, by presenting through our columns the material for a true picture of the situation. Inquiry has been made of them, and the following 15 pages are filled with the replies from several hundred of them in North Carolina, South Carolina, Georgia, Alabama, Tennessee, Mississippi, Louisiana, Arkansas, Texas, Oklahoma and Indian Territory, the States practically embracing the cotton belt of the South. Briefly summarized, the replies indicate a tendency toward a slight increase in acreage for the cotton belt as a whole, an increase, however, not overcoming the decrease in 1905 from the acreage of 1904, and a tendency to be restrained by certain natural factors. The replies show steady advance in diversification of crops, a firmer purpose than ever on the part of bankers and farmers to stand together for the common good and a greater degree of comfort among the growers.

There is a general purpose apparent all along the line for the bankers and the growers to continue, even with greater zeal, the policy of co-operation which worked out so successfully during the past season. This does not, of course, imply less acreage as a whole in 1906 than in 1905, although such a reduction is promised in a number of localities. Nor does it imply that the acreage in some States will not be increased. New lands in Texas, Oklahoma, Indian Territory and Arkansas, and, indeed, in such older States as Georgia, South Carolina and Mississippi, are being opened up and are going into cotton. In sections like the Delta of Mississippi, where no fertilizer is yet used, or where it is really cheaper to buy supplies than to raise them with cotton at 10 or 12 cents, a moderate increase in acreage may be expected and many individuals will plant from 5 to 10 per cent. wider than last year. But in the main the bankers are not encouraging any great expansion, but, on the other hand, are standing by the wisdom of the past 12 months and are receiving from the farmers hearty support. One banker, who last year rendered valuable service in organizing the bankers for the campaign of business in cotton-growing, reports that the cotton-growers and bankers are more in sympathy than ever before with the Southern Cotton Association and its purposes, and that the banks are practically a unit in standing by all wise and judicious undertakings on the part of the Association. As chairman of the bankers' committee of the Association he is receiving information by every mail on this point, and he finds that the sentiment in Georgia, Alabama, Mississippi, North Carolina and South Carolina is not only in favor of holding the balance of the crop of last year for higher prices, but that the banks are in condition to carry it for the holders until midsummer if necessary. Some farmers are still holding not because they expect much better prices, but because they do not need the money, and those who may not be satisfied with the price at the time they gin the coming crop are assured that they will have no difficulty in obtaining accommodations from the banks and merchants who are backing up the growers in legitimate plans to make their crop a paying one. At the same time a voice of caution is raised against any combination to get really excessive prices, that being held as censurable as are efforts of Wall Street bears to depress prices. Here and there, where experience has not taught wisdom, the all-cotton idea is abroad, and some few planters really favor a permanent eight-cent basis for the staple.

The readiness with which the growers favor conservatism in planting this year and their determination to work along with the banks are due to the steadily-increasing comfort of the many. Where crops have failed or where the shiftless are found there is, of course, some distress among the growers, and unless, as is done in some cases, they are assisted by their more fortunate neighbors they are in no position to follow the policy that has amply demonstrated its value, and, under the fading influences that have wrought so much ill upon the South, they may be led to become to a small degree an uncertain element in estimates of the prospect. But the day of the old credit system is passing, and now the growers are found in various stages of prosperity, from ability to pay off old debts and to lift mortgages to ability to lend money themselves. Their bank accounts are greater than ever before, and they are investing their surplus in permanent forms. They are buying more land and bringing their present holdings to a high state of cultivation. New homes with modern conveniences are being built and old ones are being improved. Up-to-date implements and machinery are being purchased, a better grade of live-stock is appearing, some farmers are investing in town property and moving in so that their children may enjoy better school facilities, the farms being rented, and more bank stock and cotton-mill stock and cottonseed-oil-mill stock are being held by the farmers, while better school buildings and better churches in divers country neighborhoods bear witness to the prosperity growing out of better prices for cotton, and to the increasing ability to maintain a policy insuring even greater prosperity in the future.

Necessity to diversify, to divert some energies from cotton-growing into the raising of other crops, is giving place to deliberateness in following the policy as this stronger financial condition of the farmers permits them to enlarge upon the wisdom of not depending upon one crop. Diversification, which implies more fertilizing and greater attention given to the crops, began primarily for thousands of growers in carrying out a "hog-and-hominy" campaign—that is, in living on one's own farm, in making supplies at home. The growing in certain favored sections of early vegetables and fruit for Northern markets, the tobacco crop, as much a staple in some sections of the South as cotton is in others, and rice and sugar planting have, of course, engaged the attention of many persons for years. Now tracts once devoted to cotton, or that ordinarily might have been planted in cotton, are being given over to a greater and greater amount of cane, tobacco and rice, while in many localities more and more attention is being given to peaches, cantaloupes, melons, tomatoes, potatoes, peanuts, sorghum, beans, cowpeas, alfalfa, corn, wheat, hay, grapes, oats, pears, apples and berries, more cows and chickens and hogs are being raised, more mules and horses and more live-stock generally for home use or for the market, as immigration is becoming more needed to meet the demand for labor and as a larger and larger number of farmers are perforce driven to handle crops that they may work themselves.

Even where there might be a desire to depart from the safe and sane policy of last year and to yield to the temptation to plant more cotton, under the impression that a greater crop would not affect the price, it faces the possibility that the supply of labor will be insufficient to make even a crop equal to that of last season. From every one of the States come complaints of a scarcity of farm labor, Oklahoma joining in the chorus. The younger negroes especially are loath to follow in the footsteps of their parents, and are either rendering inferior service or are quitting the farms entirely for idleness or desultory work in the towns and cities. Lumber mills, the naval-stores industry, mining, railroad building, dam construction and building operations generally offer higher wages than the farms, and, in the case of whites, the demands of the cotton mills are having somewhat similar crippling effect upon farm operations, in spite of the inclination noted here and there for operatives under the spur of fair prices for cotton to attempt to make a little crop of their own. Indeed, such is the activity in lumbering that not a few farmers, as is reported from Louisiana, are following the field hand to the lumber camp and are turning out their cotton acreage for the year.

Another influence against extensive expansion in acreage is the backwardness of the season in the Carolinas and Georgia, as well as in Texas and Oklahoma, the ground being still wet and cold, or the crop of corn, the success of which will largely determine the acreage of cotton, not being sufficiently advanced to give a basis for any estimate. In a few spots, too, the boll-weevil is regarded as a deterrent, though one correspondent takes a jocular view of the power of the cotton boll-weevil against the cotton bear.

This summary of a situation affecting the interests of millions of men representing cotton growing, cotton marketing and cotton manufacturing, transportation, the implement and machinery trade and other lines of industry is based upon these four questions asked the bankers:

1. How will the acreage in cotton in your vicinity compare with that of last year?
2. Will the success of the year's campaign in diversification and in co-operation of the banks and the growers be duplicated this year, with increased support from the growers and greater encouragement by the banks?
3. In what direction is diversification in farming as a natural regulator of the cotton acreage progressing?
4. What is the general financial condition of the farmers in your vicinity, and in what direction are they investing whatever surplus they may have?

The replies, with some degree of elaboration or briefly indicated by numbers corresponding to the question, follow:

## ALABAMA.

### Not Diversifying as They Should.

M. M. Brooks, cashier Bank of Atmore, Atmore, Ala.:

1. Acreage about the same.
2. We do not think farmers are inclined to diversify as much as they should.
3. Very little progress here.
4. Financial condition good; surplus invested principally in real estate as farm loans; very little speculation.

### Investing in Stocks, Bonds and Real Estate.

W. P. G. Harding, president First National Bank, Birmingham, Ala.:

My information is that the cotton acreage in our section will be larger than that

of last year, possibly 10 per cent. more. I do not believe that there will be any further progress made this year toward diversification of crops. Farmers are in better financial condition generally than they have ever been, and they appear to be investing their surplus money principally in betterments on their farms, although I know of some cases where they have made investments in stocks, bonds and real estate.

### Crop Cut by Shortage in Labor.

O. B. Pruett, cashier Clayton Banking Co., Clayton, Ala.:

1. Acreage 5 per cent. off.
2. No.
3. None.

4. Much better; better stock and home conveniences. Labor is so scarce that the crop will be from 5 per cent. to 10 per cent. off from last year.

#### Improving the Lands.

J. R. Faircloth, president Dothan National Bank, Dothan, Ala.:

1. Acreage about the same.
2. They will.
3. Fine.
4. In good condition; investing in new lands and improving them.

#### Trucking and Small Crops.

R. V. Davidson, cashier First National Bank, Gadsden, Ala.:

1. A small increase.
2. I think so.
3. Trucking; small crops.
4. Financial condition improving; investing in stock and lands.

#### Co-operation Assured.

Farmers and Merchants' Bank, Goodwater, Ala.:

1. About the same as last year.
2. Yes.
3. Grains and stock and cattle.
4. Good; in lands.

#### In the Direction of Hay and Grasses.

J. F. Johnson, president Bank of Greenville, Greenville, Ala.:

The cotton acreage in this vicinity will be little, if any, in excess of last year. Diversification has been on the increase with us for the last two years, which meets with the encouragement and support of merchants and bankers. Diversification extends principally in the direction of hay and grain. The financial condition of our farmers is the best we have ever known, and those with surplus funds are investing principally in lands, which have enhanced very much in value during the last two or three years.

#### Farmers Living More Comfortably.

L. C. Fry, president Merchants' Bank, Mobile, Ala.:

The acreage of cotton in our section will be as large as the amount of labor obtainable will permit, probably about the same as last year. I don't know that there will be any material change in the diversification of crops or the relations between growers and bankers. I have seen very little to convince me that diversification of crops has resulted in much reduction in acreage of cotton. Planters are in good condition and spend their surplus in buying more land or in living more comfortably.

#### Situation More or Less Speculative.

Michael Cody, president Union Bank & Trust Co., Montgomery, Ala.:

Owing to weather conditions our farmers generally are backward in their work, and it is more or less speculative so early to form conclusions. However, we are of the opinion as follows:

If weather conditions are favorable, there may be a slight increase in acreage, say of 5 per cent.

Diversification and co-operation of banks and cotton-growers will be about same as last year.

More corn, smaller grain, grasses and hay is being raised, resulting in the increased number of stock. We are of the opinion that labor conditions have equally as much influence in keeping down cotton acreage.

The general financial condition of farmers in this section is better. They are buying more land, are improving present holdings and are using a better class of stock, vehicles, etc.

#### Many Farmers With Large Bank Deposits.

H. M. Sessions, vice-president Planters and Merchants' Bank, Ozark, Ala.:

Acreage in this section will be about the same as last year. There is not much effort being made to get farmers to diver-

sify, as our farmers are all very high-class white farmers, and usually make plenty of corn, meat and other home supplies, plenty to do, and have some to sell the indolent fellow who fails to raise it. All diversification in farming is directed in corn, oats and hogs. Our farmers are in better financial condition than I have ever known them. Many of them have good large deposits in the bank, and a good many of them invest their surplus in lands.

#### For Reasonable and Safe Investment.

J. T. Adams, cashier Bank of Pineapple, Pineapple, Ala.:

1. Acreage practically unchanged.
2. Yes.
3. More grain, fruit and vegetables.
4. Financial condition good; improving and increasing farms, better homes, better stock; show disposition to invest in anything that promises safety and reasonable returns.

#### 10-Cent Cotton a Dangerous Stimulus

McLane Tilton, Jr., cashier Bank of St. Clair County, Pell City, Ala.:

We fear that the stimulus of 10-cent cotton will result in a larger acreage than last year, as at \$50 per bale our land yields a higher return in cotton than from corn or any other possible product, and this seems a temptation too great for human nature to resist.

We believe last year's campaign in diversification and co-operation is bearing fruit this season, but in a way not intended. The same acreage seems to be going into cotton, with an acre or two extra put in in line with the diversification idea. Those farmers not satisfied with the price of cotton at the time they gin will have no difficulty in obtaining such accommodations as may be necessary and reasonable to hold for such time and price as they see fit.

Diversification is toward fruit and trucking produce, if any. The conditions of farmers are better than they have ever been. Surplus is going into improvements in property, as a rule, purchase of more or better stock and cash.

#### Investing in Town Property.

J. H. Fitts, president City National Bank, Tuscaloosa, Ala.:

1. The acreage in cotton for the present year will be about the same as it was last.
2. Yes.
3. The diversification in farming was in increased corn crops, hay and truck gardening.
4. The general financial condition of the farmers is good; better than we have ever known it. They appear to be investing their surplus in lands and town property.

#### In Pleasant Relations.

Frank S. Moody, president First National Bank, Tuscaloosa, Ala.:

Very little, if any, cotton will be planted in this county until next month. The indications are that the acreage in cotton this year will be about the same that it was last year. If there is a tendency to diminution in the acreage of cotton caused by the cultivation of other crops, this tendency will be offset by a tendency to an increase caused by a slight increase in the agricultural population. The relations in this county between the banks and the farmers are pleasant.

#### "So Much for Mr. Bear."

C. E. Frost, cashier First National Bank, Athens, Ala.:

1. Acreage about the same; no more.
2. Yes.
3. To cantaloupes.
4. Fine; best in 40 years; better houses to live in.

Our people are in better condition financially than at any time since the war; they are holding their cotton not so much be-

cause they expect so much better prices, but largely because they do not need the money; so much for Mr. Bear.

#### Buying More Land.

A. G. Seay, cashier First National Bank, Brundidge, Ala.:

1. Same.
2. We think so.
3. No change.
4. Investing in land.

#### Farmers Not Saving.

Manufacturers' Bank, Columbia, Ala.:

1. Acreage will be about the same.
2. We think so.
3. In this section in foodstuffs mostly.
4. While the farmers are more prosperous, they are more extravagant, and are not saving much.

#### No Corn Raised Last Year.

First National Bank, Demopolis, Ala.:

1. Weather permitting, 5 per cent. increase.
2. About like last year.
3. No change.
4. Taking all their means to finance crop this year; no corn raised last year.

#### Going Forward.

John S. Hanson, cashier First National Bank, Thomasville, Ala.:

1. Yes; will not exceed last year.
2. Yes.
3. Forward.
4. Good; in lands.

#### Never Any Diversification.

Planters and Merchants' Bank, Uniontown, Ala.:

1. Acreage will be the same.
2. There has never been any diversification in this community.
3. No change.
4. Very good; investing in better stock and improving their farms.

### ARKANSAS.

#### Holding Their Surplus.

J. G. Sudbury, cashier Bank of Blytheville, Blytheville, Ark.:

1. About the same.
2. Yes; we have cleared land, all of which will be put in corn.
3. They are inclined to diversify.
4. They are holding their surplus.

#### Have No Surplus.

C. B. Maxwell, cashier Bank of Cabot, Cabot, Ark.:

1. Acreage about same.
2. Yes.
3. No change.
4. The farmers have no surplus.

#### Fifteen Per Cent. Increase.

A. A. Tufts, cashier Camden National Bank, Camden, Ark.:

1. I think the acreage will be increased fully 15 per cent. as compared with 1905.
2. The decrease in acreage in 1905 as compared with 1904 was caused by the extremely bad and wet weather, and not from any pressure by the banks, etc.
3. Nothing to speak of.
4. The financial condition of the farmer in Southwest Arkansas is bad. This section last year made from 40 to 50 per cent. of an average crop. They are badly behind in a great many cases. Men are borrowing this year who have not done so for years.

#### Stronger Financial Condition.

L. H. Pyle, cashier Bank of Conway, Conway, Ark.:

The acreage that will be planted in cotton in this vicinity would seem to be less, but which will be, I believe, 10 per cent. over last year. This will be accounted for the reason that the wet weather last year was the principal cause of the acreage being held down. As regards the diversification, we cannot see that efforts in that line have made any advancement whatever. The general financial condition of the farmers here is 25 per cent. better than last year, and as to their investments of their surplus, it is usually in betterment

of their farming interests, farming machinery, horses, mules, etc.

#### Wrought Through Diversification.

R. R. James, president Bank of Cotton Plant, Cotton Plant, Ark.:

Cotton acreage in this vicinity will be about the same as last year. The idea of diversification is growing, and both farmers and bankers are working together. Farmers are raising more corn, peas, potatoes and hay, and therefore less cotton. Financially farmers are in better condition than they have been for several years; have money in bank and are improving their farms and putting more land in cultivation. The farmers' outlook for the future is brighter than usual, and the idea of raising more cereals and grapes and less cotton is, to a great degree, responsible for the bright future.

#### Opening Up New Lands.

W. J. Echols, president Merchants' National Bank, Fort Smith, Ark.:

The acreage in cotton in this vicinity will equal and probably exceed by a small per cent. the acreage of last year. The probable small increase in acreage will, in my opinion, be due to the opening up of new lands, and not to a decrease in diversification of crops. The banks are inclined to give all reasonable and consistent support possible to the growers. The farmers, I believe, are not in a more favorable financial condition than they have been for the past few years; in fact, I think the collections by retail houses doing a credit business with the farmers have been more unsatisfactory than in years past.

#### No Effort to Check Increase.

J. H. Hall, cashier Cleveland County Bank, Kingsland, Ark.:

There will be an increase in the cotton acreage in this section of the country unless something unforeseen occurs, but to what extent we are not prepared to say. Our crop was very short last season, on account of which our farmers have been placed in a bad condition financially, which is an incentive to increase the acreage. There has been no effort to check the tendency towards an increase in the acreage, but if there should be, in my opinion, it would avail nothing.

#### Unable to Get Labor for Last Year's Acreage.

C. T. Walker, secretary Arkansas Bankers' Association, Little Rock, Ark.:

As to the acreage, it is my opinion, based upon statements from planters, that there can be no increase of acreage in this section owing to the shortage of farm labor. Many planters have said they were unable, so far, to obtain sufficient labor to take up as much acreage as last season. As to diversification, am of the opinion that there is not much change in this respect except in the prairie section, where, owing to the eminent success of a few who experimented last year, there is a large increase in acreage given over to rice-planting. The government has opened several experimental farms in the central section of the State from which it is hoped a spirit of change in the methods of cultivation will be brought about. There is somewhat of a change in this locality in the financial status of the farmer this season as compared with that of 1905. There are very few if any that have not suffered severe losses of the past season owing to the extreme shortage of the crop. The seasons could hardly have been more unpropitious for the cotton planter than those of 1905. Consequently, barely an average third of a crop was gathered hereabouts. It is this result that now produces the shortage in labor. The negroes, closing the year in debt, as is usual with them, rather than work out what they owe, prefer to migrate. Under these con-



ditions the majority of farmers have little or any surplus means. This is indicated by the increased number of applications for loans as compared with the two previous seasons.

#### Vegetation Very Backward.

J. O. Ragon, cashier Bank of Lamar, Lamar, Ark.:

The acreage in cotton in this vicinity will not be increased this year, as there is a strong effort being made to a further reduction in acreage than that of last year. The farmers have a tendency to stay out of debt this year, and are being encouraged by both the banks and merchants. Our farmers are paying more attention to diversification than ever before, and are using their lands more for other products than cotton. Our farmers are finding that diversification is profitable, and that they can make as much or more out of other products than they can out of cotton, and are trying to raise less cotton and more of other products. Our farmers, as a whole, are in a better condition financially than ever before. Many of them have money which they deposit in banks or loan to their neighbors. There has been but little progress made toward a new crop on account of the lateness of the spring. It is very wet, and still raining, which will throw farmers from two to three weeks behind with their planting. Vegetation is very backward, and it looks as though we might have a very late spring, and as a late start is most always indicative of a bad finish, the present outlook is not in the least encouraging.

#### Southern Farmer to Be a Success.

Charles McKee, secretary Mercantile Trust Co., Little Rock, Ark.:

I do not think the acreage in this county will be materially increased or decreased over last year. Undoubtedly the year's campaign for crop diversification will have its effect on the farmers, and more acres will be put in foodstuffs than heretofore. The banks throughout this State are ever ready to co-operate with the cotton-growers, and I believe their universal advice to farmers has been diversification. This diversification of crops has taken the form of alfalfa hay, better cultivation of corn and oats, more potatoes and fruits and more "hog and hominy." Knowledge in this direction is necessary still, but every year will show a few more farmers in every community living at home. The general financial condition of the farmers in this vicinity is fairly good, considering they have had two disastrous years. They are hopeful and are hard at work. If they do not raise too much cotton this year and get a high price for it, I think the farmer's condition in the South is solved. He will be a success. Whenever he is taught by the hard lessons of adversity that he cannot make a fortune on cotton alone he will live at home, and the last two years have given him a rather severe lesson along this line. I trust that the campaign of the MANUFACTURERS' RECORD will be kept up.

#### The Weather Backward.

J. S. Smith, cashier Bank of Charleston, Charleston, Ark.:

On account of the backwardness of the weather, it is too early to make anything like an accurate statement. The prospect was for about the same amount of cotton for this year as last, but bad weather has cut the oat crop short, and this may be put in corn, but cannot tell yet.

#### To Add Acreage in Other Crops.

R. L. Kane, cashier Bank of Quitman, Quitman, Ark.:

The acreage in cotton in this section will be about the same as last year. The acreage of other crops, especially peas and oats, will be increased over last year, thereby reducing the proportion of cotton

to other crops. The total acreage of all crops will be in excess of last year. New lands are being put into cultivation and old abandoned farms are being fertilized and redeemed. Farmers are in a more prosperous condition than last year. They are investing their money in stock and improvements on their farms.

#### Considerable Cotton Still in the Fields.

W. A. Steele, cashier First National Bank, Van Buren, Ark.:

The cotton acreage will be increased but very little over last season from the fact that it is getting to be a pretty hard proposition to get labor to assist in making and gathering the crop. Considerable cotton is still in the fields in some of the river-bottom farms, as the grower has been unable to get hands to pick it. The general financial condition of the farmers in this vicinity is good. The farmers in this section are well organized and are working with businesslike methods to the betterment of their condition.

#### Hay in Bottom Lands.

A. N. Rogan, cashier Johnson County Bank, Clarksville, Ark.:

1. Think about same; will not be more.
2. Yes; think so.
3. More; decrease in cotton is utilized for hay in bottoms and fruit and corn on hills.
4. Best condition in history; great many not investing.

#### Planting Fruit and Corn.

First National Bank of De Queen, De Queen, Ark.:

1. About the same.
2. Yes, largely.
3. Fruit and corn.
4. Poor; short crop last year.

#### Financial Condition Good.

Bank of Earle, Earle, Ark.:

1. Acreage will be increased.
2. Yes.
4. Good.

#### In a Fruit Country.

A. L. Trent, cashier Bank of Fayetteville, Fayetteville, Ark.:

We are out of the cotton belt; no cotton north of Boston mountains. This is particularly fruit country; the finest apple county on earth; raise diversity of crops. Farmers are in easy, good condition.

#### Little Attention Given Cotton.

G. N. Sparks, assistant cashier Bank of Nettleton, Nettleton, Ark.:

There is very little attention given to cotton in our immediate vicinity. Nothing has been done as yet toward the coming crop. Our farmers are directing their time and cash to more grain, hay and stock; also considerable improvement in clearing land, fencing, house-building, etc.

#### Progress in Diversification.

Miners' Bank, Yellville, Ark.:

1. Considerably less.
2. Yes.
3. Well; alfalfa, corn and wheat, oats and cowpeas.
4. Poor on account of short crop.

#### Standing Pat on Last Year.

L. B. McClure, cashier People's Exchange Bank, Russellville, Ark.:

The cotton acreage in our vicinity last year was reduced something like 25 per cent. The acreage of this year will not exceed that of last, but I do not think there will be any reduction over last year. The farmers are gradually diversifying more and more each year, and the campaign of last year has had a very good effect and is still being carried on, receiving the support of the growers, the merchants and bankers as well. The general financial condition of our farmers is very good. Their investments, principally, are along the line of improving their farms

with better buildings, improved farming machinery and implements and improved live-stock.

#### To Enlarge Acreage.

First National Bank, Waldron, Ark.:

1. Will be 15 per cent. more planted.
2. Yes.
4. Fair financial condition.

#### About the Same Acreage.

L. L. Beavers, cashier Montgomery County Bank, Mt. Ida, Ark.:

1. Acreage about the same.
2. Yes.
4. In land.

#### Financial Condition of Farmers Not So Good.

T. M. Neal, president Bank of Russellville, Russellville, Ark.:

1. Increase 20 per cent. in acreage.
2. Yes.
3. Just fair.
4. Not so good.

### GEORGIA.

#### Opposed to Farmers Forming Trusts.

Jacob Phinizy, president Chamber of Commerce, Augusta, Ga.:

I can only answer your questions in a limited way, as I have not been about much this season, and my remarks will necessarily have to be confined principally to this locality. I believe the acreage in cotton in this vicinity will be at least 15 per cent. greater than last year. There is a disposition on the part of planters in this section to put all available land they can spare into cotton. I believe the banks are disposed to encourage the cotton-growers in every way, but I am not an advocate of the growers combining and forming trusts and asking prices for their production beyond what is fair and reasonable. I am satisfied that any grower of cotton who can obtain 10 or 11 per cent. for the same can make money and can do well. I think the growers of cotton where they go into a combination and ask excessive prices for cotton are subject to as much censure as the Wall Street bears who wish to depress the price and keep the market down to a price where the grower cannot make the staple at satisfactory remunerative prices. I do not believe that there is much diversification going on on the part of the farmers, with the exception possibly of a tendency to raise more corn. The disposition to increase the acreage in cotton does not leave much room for diversification. The general financial condition of the farmer throughout the South is good, probably better than ever before, and as a rule I believe the tendency is to invest his surplus more in lands than in anything else. I have answered your questions as near as I can to be consistent, and I hope that my answer will be of some service to you.

#### Tobacco, Cane and Vegetables.

Frank S. Jones, cashier First National Bank, Bainbridge, Ga.:

The acreage in cotton in this county will be practically the same as last year. There is an increasing acreage in tobacco, cane and vegetables. I consider the condition of the farmers generally worse than last year. They are more in debt. I mean the little one and two-horse fellows.

#### Buying More Farms.

Citizens' Bank of Barnesville, Barnesville, Ga.:

1. About same in acreage.
2. Yes.
4. Improving; buying more farms.

#### "Hog and Hominy" More Popular.

James M. Jones, vice-president Merchants and Farmers' Bank, Boston, Ga.:

The farmers, as a rule, plant about 12 acres of cotton to each one-horse crop, some as low as 8 and 10 acres. The average this year will be about the same as

last, if not a small decrease. The farmers are diversifying more and more each year, paying more attention to food crops, especially the "hog-and-hominy" proposition. Farmers, as a rule, are in good financial condition, and are investing their spare money in real estate.

#### Lands in Better Cultivation.

Bank of Bremen, Bremen, Ga.:

1. Acreage 5 per cent. increase.
2. Yes.
3. Lands in highest stage of cultivation.
4. Buying more land and building houses.

#### Public Works Attracting Labor.

R. O. Pitts, cashier Commercial Bank, Cedartown, Ga.:

From the number of mules sold this season I think the acreage in cotton will be at least as much as last year, and if labor can be had, a possible increase of 10 to 15 per cent. The labor question is quite a serious one, especially in this section of the State, where there are so many public works calling for just that kind of labor that the farmer needs. For this reason the acreage may not be increased. Our banks have been and are still showing every disposition to help the farmer in making his crop and in holding it after it is made if he so desires. I will state here that there is less cotton held by the farmer today than at this time last year. Their financial condition is good. Most of them are out of debt, and very few farm mortgages are being made. They are investing their surplus funds in better stock and better farm implements, while a good deal of attention is devoted to the improvement of their farms and farmhouses. A goodly number have money deposited in the different banks of the county, and this number is increasing annually. I can see no special effort towards diversification; about the usual amount of small grain has been sown.

#### Money Going Into Banking.

G. Gunby Jordan, president Third National Bank, Columbus, Ga.:

Our information leads us to believe that the acreage in cotton in this immediate vicinity will probably be a little less than last year. Both years the farmers intended to put in all the acreage that they could find labor to tend it. Owing to the very great demand for labor in railroad building, construction of dams, mining, turpentine industry, cotton-mill work, building generally and other enterprises which pay higher wages than agriculture offers, there is a constant drain upon the able-bodied labor of the farms, and it continually goes to these enterprises named. So, with practically no immigration into our State, the farmers find themselves year by year a little shorter of help. We think that the continued diversification on the part of the farmers and co-operation of the banks will be assured another year. The increase of banks in this State was over 90 last year, and since the first of January there has been quite a number of new charters granted, and as the country is getting richer, money goes into banking and offers facilities for the farmer holding his crop and borrowing funds cheaply for that purpose. Diversification in farming in Georgia naturally has taken the direction of truck farming to a great extent as manufactories increased and the demand for small fruits and vegetables increases. Then the splendid success that much of the State has met with growing sugarcane and fruits has had a tendency to make diversification in those two directions. The general financial condition of farmers in our section was never better. They made last year's crop cheaper than ever before and they received a fair price for it. The consequence is lands have appreciated and the farmers are in good

financial condition. As previously outlined, they have invested considerable of their profits in the organization of banks and in deposits in these banks. Many of them have bought additional lands and improved that which they already had. The outlook appears at this time to be good, and the condition of the country was never better, in our opinion. The greatest need in this section for all purposes is more people, especially able-bodied, willing white people.

#### The Successful Farmer Raises Supplies at Home.

T. E. Blanchard, president Fourth National Bank, Columbus, Ga.:

The acreage will be no more than last year. I am largely influenced to this conclusion by the very general complaint of scarcity of labor. The farmers are diversifying their crops to the extent of trying to make more grain, and in many instances we learn of increased acreage in peaches. We find that the successful farmer is the one who raises his supplies at home. By this I mean grain and meats. We have many instances of successful farmers who farm in this manner and who are influencing other farmers more and more each year to farm in this way. To the last question will say that the financial condition of the farmers is shown by the liquidation of their debts and investing in farm lands. The deposits of the banks and the increase in the number of new banks in this State show this to be the case.

#### White Farmers Becoming Independent.

William B. Slade, president National Bank of Columbus, Columbus, Ga.:

1. Acreage is about the same; no larger, but using more home-mixture fertilizer.
2. Yes; no change that we know of from last year's conditions.
3. Reducing natural increase of cotton crop and making white farmer independent of the shiftless.
4. Generally out of debt; better home conditions.

#### Holding Cotton for Fifteen Cents.

C. J. Hood, cashier Northeastern Banking Co., Commerce, Ga.:

The acreage will not be increased in cotton owing to scarcity of labor, but there will be some increase in grain crops, especially oats and corn. Farmers and banks are co-operating well enough in holding the present cotton crop with the very probable outcome of a considerable loss to both financially. Banks are very faithful to advise farmers to plant less cotton and more grain, and farmers give the same advice to other farmers, but even the present price is too tempting for individuals to practice planting less cotton. The general financial condition of the farmers is much improved over a few years ago; old debts have been paid off, mortgages have been lifted, better mules and farm tools have been bought, homes improved, and about all the rest of their money has gone into holding cotton for 15 cents.

#### A Slight Increase.

G. E. Strickland, the R. F. Strickland Company, Concord, Ga.:

The cotton acreage will be increased about 5 per cent. The farmers and the bankers will continue to work in co-operation. The farmers are improving their homes and lands and making investments in real estate.

#### Industries Drawing Away Labor.

J. W. Cannon, cashier Merchants and Farmers' Bank, Cordele, Ga.:

The cotton acreage will be about the same as last year. There will be an increased acreage in other crops. The extreme scarcity of labor and high wages paid by saw-mill men, turpentine opera-

tors, railroad companies, etc., will make it impossible to cultivate acreage planted if conditions are average, and will result in an abandonment of a large acreage if May and June have excessive rains. The financial condition of our farmers is the best in the history of the county.

#### "All-Cotton" Idea Running Riot.

McPherson & Co., bankers and merchants, Cuthbert, Ga.:

The acreage in cotton, so far as it relates to this vicinity and as compared with last year, is no less. We see no immediate prospect of diversification so long as the price of the staple is 10 cents and above. Generally speaking, the financial condition of the farmers in this section was never better, and practically all of their surplus or increased wealth is being invested in farm lands and town property. We regret the necessity of having to report so little interest in diversification, for we believe the pursuit of the "all-cotton" idea, now running riot in this favored region, will one day bring about results that forebode no good, and possibly disaster to the farmer. Some of our best and most successful planters express the hope that cotton will go back to eight cents and stay there, asserting that they made more money and had less trouble with labor than they do on the present basis. There is some doubt in our mind as to the logic of that proposition, and until the light dawns upon us more clearly regarding it we are not prepared to accept or advocate anything less than the highest price that can be obtained for it. Wishing the MANUFACTURERS' RECORD success in its exploitation and advancement of Southern industry, and hoping that it may be well repaid for its efforts by this generous and appreciative people, etc.

#### Able to Hold Crop.

J. A. Space, cashier Darien Bank, Darien, Ga.:

1. Just about the same in acreage; some new planters, but others have dropped out.
2. Think so; very much more encouraged to do so.
3. Excellent so far as their ability to hold and dispose of their crop.

#### Wiregrass Farmers Well in Line.

W. M. Smith, cashier Bank of Doerun, Doerun, Ga.:

I am glad to say that the farmers in this section of South Georgia, known as the "Wiregrass" section, are well in line, and, as a rule, very well organized or a unit in their opinion on the cotton acreage and the diversification of crops. Despite the fair prices for cotton the last season, the farmers are not overdoing the thing in putting in too much cotton. They are very conservative on that line, and giving attention to stock (hogs especially) raising, planting more grain, velvet beans and raising hay. Around Doerun in Colquitt county, where six years ago the county was in a very crude state, so far as development was concerned, has now developed the fact that no finer farm lands are to be found for the production of any kind of grain, hay, feedstuffs, fruits or vegetables. Farmers are cutting their cotton acreage here, giving more attention to raising "home-made fertilizers." Where they raised two years ago a half-bale of cotton to the acre they are now raising two bales to the acre. They, as a rule, are out of debt, own their own homes, and when they are disposed to hold their cotton they can do so without the aid of anyone, while the few who are not so fortunate always find the banks in the country ready and willing to assist the farmer, as quite a good deal of the bank's best business comes from that source. The farmer's surplus goes toward building better farmhouses, clearing new farms, stocking his farms

and beautifying his place. There is a spirit of industry here that has never been known before; the country seems to be in a prosperous condition and everybody pushing to the front. The acreage here will be heavier some than last year because there are so many new farms opened here. But in proportion to the amount of farms here last season there will not be any increase.

#### Investing in Land.

Bank of Donalsonville, Donalsonville, Ga.:

1. Acreage the same.
2. Yes.
3. Good; in land.

#### Banks and Farmers Co-operate.

F. G. Corker, president First National Bank, Dublin, Ga.:

In my judgment the acreage in cotton in this county this year will be about the same as last year. I consider the movement for diversification is stronger this year than last year, and there will be a greater co-operation between the banks and the farmers than ever, as each class seems greatly benefited by this co-operation. The diversification in farming in this county is in food crops, and the farmers are in better condition now than they have been since the war.

#### Banks Have Been of Great Assistance

Samuel Rutherford, vice-president First National Bank, Forsyth, Ga.:

I have been an active supporter of the Southern Cotton Association since its organization, as I readily recognized that a campaign of education was necessary to teach the people the necessity of diversification of crops. In 1904 the farmers of this county planted practically no corn, being led astray by the high price of cotton, but last year meetings were held throughout the county and active interest taken, and the result was that more corn was planted than in any year for 10 years prior. I am confident that the acreage in cotton will not be increased from last year. Labor is exceedingly scarce, and so, many will stick to pledge. The banks have been of great assistance to farmers both in holding cotton and assisting them in making their crops. They are now and will stand by them. Farmers are generally in much better financial condition than for years. Some are buying land and some keeping bank accounts where they never before. We are making more hay here than I ever thought could be done. The tendency is towards less cotton and more food products.

#### Bettering All Along.

T. M. Zellars, president Bank of Grantville, Grantville, Ga.:

1. Acreage will not be increased, but I am inclined to think decreased on account of scarcity of labor about 5 per cent.
2. Yes.
3. By raising more foodstuffs at home.
4. Good. Are investing their money in land, good homes, better stock, improved farm machinery.

#### Hay and Cattle.

Greenville Banking Co., Greenville, Ga.:

1. Acreage about the same as last year. Scarcity of labor may make it less.
2. Yes.
3. In raising food and hay crops and cattle.
4. Conditions better than in 10 years; better stocks, etc.

#### Bankers Lending All Assistance Needed.

J. C. Turner, cashier Jefferson Banking Co., Jefferson, Ga.:

Cotton acreage will be increased in Jackson county 10 per cent. over last year. Bankers are lending all needful assistance. Farmers are slightly increasing corn acreage. The financial condition of our

farmers is good, investing their surplus in lands and stocks of country banks.

#### Shortage of Labor an Influence.

Josiah Blasingame, president Bank of Jersey, Jersey, Ga.:

The acreage will not be increased—first, because of the absence of labor; second, because of the good judgment of the farmers and diversification. There never has been a time when the banks and planters co-operated so thoroughly as now. Truck-farming to supply the towns and cotton-mill operatives, corn and oats are the principal articles of diversification. The farmers have all made money each year of the present century, the two last years being the best, and are investing their earnings in bank and cotton-mill stock, farming lands (which have more than doubled in price in four years), better farm implements, better mules, better homes and home conveniences, better churches and schoolhouses, etc. There are 10 times as many girls and boys now in college from this (Walton) county as there were in 1900 or any year previous to that.

#### But for Want of Labor.

A. B. Coffey, cashier Lithonia Banking Co., Lithonia, Ga.:

I think the acreage in this vicinity will be about the same as last year. It probably would be increased but for want of labor. I think the diversified crops will be about as last year, or possibly slightly increased. The general financial condition of farmers is better than it has been since the Civil War. Farmers are investing their surplus mainly in land and farm improvements.

#### The Temptation to Speculate on Cotton Futures.

O. A. Coleman, treasurer and general manager Georgia Loan & Trust Co., Macon, Ga.:

I do not consider myself qualified to answer your questions very accurately, but would say that there will not be any great difference in the acreage in cotton this coming year from the past year. Probably if anything a little more cotton and also more diversified crops will be planted. More land is opened up yearly, but some lands are permitted to rest. The banks and cotton-growers will probably duplicate their arrangements of this past year in co-operating, probably with greater encouragement. The farmers are planting more grain and raising more fruit, as well as increasing their supply of cattle and hogs. The farmers in our territory are in good condition financially as a rule, and the farms are in better shape. The only evil that seems to come out of the method of borrowing money on cotton is the temptation to speculate on cotton futures. Doubtless a number of farmers borrow money on their cotton for this purpose. Such are among the most prosperous growers, however.

#### Making Farm Self-Sustaining.

O. E. Dooley, assistant cashier American National Bank, Macon, Ga.:

1. Acreage about same.
2. Probably so.
3. Making farm self-sustaining.
4. Financial conditions are better than in years; improving their farms.

#### Not Depending Upon Cotton Alone.

J. W. Cabaniss, president Exchange Bank of Macon, Macon, Ga.:

It is rather early to determine the acreage that will be put in cotton this year, but as far as we can tell up to the present it will be about the same as last year. The scarcity of labor will prevent any increase, but I think it probable that the planters will try to have as much in cotton as they did last year. I think that the crops will be fully as much diversified this year as last, the farmers generally raising their own supplies and not depending on cotton



alone, as in former years. The farmers are diversifying more in raising grain both for their stock and also in raising more of everything that is possible to be raised for the consumption of their families. In this immediate territory quite a large business is done in fruit culture, especially peaches, and considerable diversity in crops is also found here in the raising of melons, cantaloupes and various kinds of vegetables for the market. The general financial condition of the farmers in this vicinity is very much better than it was a few years ago, and are getting in better condition all the time. Up to now they are investing their surplus more in the improvement of their homes, the purchase of additional lands, and investing more in home comforts than formerly.

#### Investing in Land.

C. E. Attaway, cashier Bank of Millen, Millen, Ga.:

1. Acreage about the same as last year.
2. Yes.
3. Grain and trucking.
4. Better than ever before; investing in land.

#### Advance in Acreage.

Moultrie Banking Co., Moultrie, Ga.:

1. Acreage is 5 to 10 per cent. in advance.
2. We think so.
4. Good; in lands.

#### Ready to Stand by Farmers to the Last Ditch.

W. A. Peterson, cashier Mount Vernon Bank, Mount Vernon, Ga.:

The acreage will equal if not slightly exceed that of last year in this (Montgomery) county, due to the fact that a great deal of land has been cleared for cultivation this year. We believe that diversification will be practiced to a greater extent than ever. The banks in this section are ready to stand by the farmers to the last ditch. Diversification is progressing in the direction of making the farm self-sustaining in foodstuffs as far as possible. There will be less corn and meat bought by the farmers in this county this year than ever before. The farmers in this vicinity are in good financial condition, and the great majority of them are investing whatever surplus they may have in the improvement of their farms and in better farm implements and equipment.

#### Bales in the Warehouses.

T. M. Goodrum, cashier Newnan Banking Co., Newnan, Ga.:

The warehouses here contain about 3500 bales. The acreage will be about the same as last year, which was reduced about 25 per cent. The farmers of this section seem to realize that diversification is a necessity, and what has been dealt with in the past as a theory has now become a business fact, and not subject to doubt. The banks have met all requirements of the planters in the past, and hope to continue to do so. On the whole, the situation is very gratifying and the farmers are generally prosperous. Through this section labor is scarce, which fact will compel a reduced acreage for this year.

#### Progress in Diversification.

W. P. Simpson, president Exchange Bank of Rome, Rome, Ga.:

1. Acreage 5 to 10 per cent. more.
2. Probably so.
3. Diversification progressing well.
4. Good; mostly in improvements.

#### More Fertilizers vs. Fewer Laborers.

John H. Reynolds, president First National Bank, Rome, Ga.:

The amount of fertilizers that are being bought in this market would indicate that the acreage of cotton will be increased, but where they are to get the labor to make it I cannot see. The farmer cannot afford to pay as much for hands as the

miner and the manufacturer. He will indeed be a benefactor who can supply the South with labor and give us labor that can be relied upon. It looks as if the diversification of crops and the bankers will continue to give substantial encouragement to the farmer. The farmers continue to grow in financial condition, and are buying more and better stock and more land adjoining theirs.

#### Making Cotton the Surplus Crop.

J. F. Lee, cashier Royston Bank, Royston, Ga.:

I do not expect much difference in the acreage this year as compared with last year, when it was reduced about 18 per cent. in this county; may possibly be an increase of, say, 5 per cent. To the second question I would say "yes." My observation is that the farmers are learning that it pays better to make their cotton crop a surplus by raising all of the supplies they can at home. They see that the ones who do that are more prosperous than the others. The farmers are in better condition than I have ever known. Some lend their money, some invest in local enterprises, but a great many of them are buying more land, thus increasing the price of land each year. I believe they are studying more than they ever have, the rural mail service enabling them to get periodicals so easily.

#### Making Improvements.

Mills B. Lane, president Citizens and Southern Bank, Savannah, Ga.:

I do not think there will be any reduction in the acreage of cotton in the territory tributary to Savannah. There will practically be no diversifications in the crops in this section, as they are just about as much diversified now as conditions will permit. The general financial conditions of the farmers in the territory tributary to Savannah were never better, and the farmers are spending their money in buying additional unimproved land and making improvements on the new purchases, as well as their original holdings. Georgia farmers, as a rule, do not invest in securities; usually spend their money having a good time and improving their homes.

#### Larger Production of Fruit and Grain Crops.

F. D. Bloodworth, cashier National Bank of Savannah, Savannah, Ga.:

I beg to say that we are so far removed from the section producing cotton that we can give you no information as to their plans. The only information we have about the acreage is what is published in the statistical reports. We know, however, that farming is being diversified not only in the direction of larger production of grain and fruit crops, but a good deal of attention has been paid to truck-farming. Our information leads us to believe that the financial condition of the planters in this State is good.

#### To Produce More to the Acre.

Wm. L. Kendrick, cashier Bank of Sharon, Sharon, Ga.:

There will be no more cotton planted than last year, but I think an effort will be made to produce more to the acre than last. There will be planted sufficient grain, etc., to sustain the farm. This refers to the best white planters. The farmers, as a rule, are in the best shape financially for years. Think the rule will be by the best element to raise food supplies sufficient, then all cotton possible.

#### Excesses Growing Out of Good Prices

E. A. Rozier, president Bank of Sparta, Sparta, Ga.:

The acreage in our vicinity will be fully up to last year, perhaps a little in excess. In this vicinity the diversification of crops last year was very meager, and the outlook promises but very little more increase, but the farmer enjoys the support of the

banks to a greater extent perhaps than warranted. Peach culture to a certain extent has regulated the acreage of cotton in certain localities, but to an inconsiderable extent, for cotton is cultivated in the orchards at least three years after planting the trees. The general financial condition of the farmers is bad because of excesses engendered by better prices for their products. Especially is this true among the darkies, who do 75 per cent. of the farming in this county, and who are investing their surplus in buggies and stock.

#### Banks Standing by Wise Policies.

John D. Walker, president First National Bank, Sparta, Ga.:

Cotton acreage in this locality will be practically the same as last year; possibly a little less on account of the scarcity of labor. Cotton growers and bankers are more in sympathy with the Southern Cotton Association and its purposes than ever before, and the banks are practically a unit in standing by all wise, judicious undertakings on the part of the Southern Cotton Association. The general financial condition of the farmers in this vicinity is good, and they are investing their surplus in land principally. The writer is now engaged in a work among the bankers of the South as chairman of the Southern Bankers' Committee, and I am receiving valuable information by every mail. I find that the sentiment in Georgia, Alabama, Mississippi, North Carolina and South Carolina is not only in favor of holding the balance of the crop for much higher prices, but that the banks are in condition to carry the cotton for the farmers until July or later if necessary.

#### Corn, Fruit, Poultry.

Rowe Price, cashier First National Bank, Tallapoosa, Ga.:

1. Acreage 10 per cent. increase, due to development of this county, which has not been agricultural.
2. Very much so in this locality.
3. Corn, fruits, poultry.
4. Improvement of property and stock.

#### Encouraged to Diversify.

T. M. Matthews, cashier Farmers and Merchants' Bank, Thomaston, Ga.:

The acreage planted in cotton in this section will be about same as 1905. The farmers will have the same encouragement and support from all classes for a diversification as they had last year. Grain and fruit interest will occupy the surplus ground heretofore planted in cotton. Farmers are in good condition. Their surplus is either held in cotton or, where sold, invested in lands.

#### Lands Rising in Price.

J. T. Culpepper, president Citizens' Banking & Trust Co., Thomasville, Ga.:

1. Acreage about the same.
2. Yes.
3. Melons, fruit, vegetables for Eastern and Western markets, stock-raising.
4. Better than year before; buying land and improving same. Lands have risen from \$5 to \$6 per acre in five years.

#### All-Around Improvement.

Thomasville National Bank, Thomasville, Ga.:

1. About the same.
2. We think so.
3. Corn, oats, sugar-cane and hogs.
4. Good: improving their farms, new fences, new houses, better farm tools and more and better live-stock.

#### No Means for Additional Acreage.

Paul A. Bowden, cashier Farmers and Merchants' Bank, Thomson, Ga.:

In answer to your question, "How will acreage in your vicinity compare with that of last year?" we believe there will be very little if any difference. A few people are planting some more cotton and about as many others are planting less. The acre-

age last year was as much as the labor we have could cultivate; therefore we positively have no more room for increase in acreage. Fertilizers will be about the same as last year. We think the campaign of last year in diversification and in the co-operation of the banks and growers will be duplicated this year. People are planting more small grain and grain of every description, and every year shows a greater yield of hay in this section. The financial condition of the farmers in this vicinity is better than heretofore, as is shown by more of the renting class buying their own farms, and in the purchasing of better mules and better farming implements and the improvement of homes. The writer is very much interested in your paper, and repeats what he has often said, that the MANUFACTURERS' RECORD is doing more to build up the South in every way than any other paper, and I wish to thank you for the effort you are making.

#### Farmers in Good Financial Shape—More Cotton Expected.

E. P. S. Denmark, vice-president Merchants' Bank of Valdosta, Valdosta, Ga.:

1. Acreage increased 8 per cent.
2. It will not.
3. For more cotton.
4. Financial condition good; buying land.

#### Indifference of Labor.

J. F. Lewis, president Citizens' Bank, Valdosta, Ga.:

The acreage of cotton in our county and section will be at least 5 to 10 per cent. less, for the reason that the farmers are as bad, or worse, behind in their preparation for planting than I have ever seen them, owing to bad weather the past month or two and the scarcity and indifference of labor. The saw-mill and naval-stores industry and others are badly crippling the supply of farm labor, and it is almost impossible for the farmers to increase their crops for this reason alone. I think our farmers are planting more corn, oats, pinders, vegetables, cane and other products of this kind than usual. The farmers are in some better condition than usual; they invest their surplus mostly in lands and deposit in banks at interest and make a few investments in city property and stocks.

#### Sentiment Favors a Further Reduction.

W. C. Davidson, cashier Bank of White Plains, White Plains, Ga.:

The acreage planted in cotton here will be about the same as that of last season; the sentiment favors a further reduction, and some have reduced. The same effort to have the farmers diversify their crops is being put forth this season as that of last year, and is meeting with success; in fact, there is hardly need for this to be urged, for the reason that the farmer is in a financial shape that enables him to diversify his crops. For several years they were forced to plant all cotton in order to meet their obligations. It is quite different now. The above is about what you have asked for, and I will add a few facts that prevail here in middle Georgia. At this date it is as cold as it has been during the whole of winter just passed out. The ground is so wet that there is no preparation going on, and has not been for the past 10 days, and won't be for the remainder of the week, and if these weekly rains continue the crop here is sure to be late. The advance gained two weeks ago has been lost, and the farmers are beginning to feel anxious. There has been a great deal said recently about the whole South being planted to cotton. This is a myth which has passed over this country like a wave, and when it settles back there will be a different tale to tell. There remains in this section about 900 bales of the old crop unsold, and these bales are in strong

hands and firmly held, and if the same disposition to hold the remnant of last year's crop prevails over the South as here, the available supply will soon be out of the way and it may be "what will you take for your cotton" instead of "what will you give for it."

#### Some Reduction in Acreage.

Bartow Bank, Bartow, Ga.:

1. About five acres less to the horse.
2. Yes.
3. Corn and other farm produce.
4. Financial condition good; depositing surplus with banks.

#### Peaches, Oats, Wheat.

W. L. Williamson, cashier First National Bank, Commerce, Ga.:

1. Slightly more; say 10 per cent.
2. Yes.
3. Peaches, oats and wheat.
4. None better; got most of surplus in cotton now.

#### Buying Mules.

Hartwell Bank, Hartwell, Ga.:

1. Acreage 10 per cent. greater.
2. Yes.
3. More grain.
4. Good; for mules.

#### Farmers Lending to Farmers.

Loganville Banking Co., Loganville, Ga.:

1. Acreage will be about the same.
2. We think so.
3. More corn, less cotton.
4. Good; land; more owners of land and farmers lending to farmers.

#### Lots of Fencing Being Done.

Milledgeville Banking Co., Milledgeville, Ga.:

1. About same.
2. Yes.
3. Hay, corn, etc.
4. Improving farms; lots of fencing being done; farmers better off than ever before.

#### Farmers in Better Shape.

R. H. Johnson, cashier People's Bank, Ocilla, Ga.:

1. Acreage about same.
2. Yes.
4. Better than for several years.

#### Many Farmers Short of Labor.

J. E. Paullin, cashier Bank of Fort Gaines, Fort Gaines, Ga.:

There does not appear to be such an organized movement among our cotton-growers to reduce the acreage for the present year as there was last, and I hardly think that it was necessary, as experience is a great teacher, for last year, with a decrease of about 15 per cent. in our section, many of our farmers came very nearly having their crops ruined by the grass, on account of the wet weather and the scarcity of labor. The same conditions exist as to labor that existed last year. No one has a surplus, and very many are short. Some few farms are not being cultivated, on account of the owners not being able to control the labor to work with. Of course, this is the exception. On account of natural conditions there may be an increase of possibly 5 per cent. in our section. There will be an increase in the use of fertilizers of at least 33 per cent. Part of this is due to the farmers selling a larger part of their seed every year, and the buying of commercial fertilizers to manure their corn, cane and potatoes. Our farmers are more and more trying to raise a larger part of their farm supplies at home, more oats, corn, hay and potatoes. They have decided that commercial fertilizers are cheaper than land, mules and negroes, and the consequence is that they fertilize their crops better, and while not planting so much, really make more. The farmers are largely investing in home improvements. Really, they haven't much more surplus money than they had five years ago, but the general

appearance of their farmhouses, dwellings and land shows where their earnings have gone. They live better, and are able to enjoy more of the luxuries of life. I have had a longer experience as a farmer than as a fertilizer manufacturer and banker, and there is one thing that makes me laugh and feel good, and that is when I remember when I and other farmers part over the South were forced to sell our cotton at four and five cents, the price fixed in New York and Liverpool, and although the whole cotton belt was on the eve of bankruptcy because we were getting much less for our cotton than it cost to raise it, there was none to help, none to sympathize with us. Now, as to the laughable part, when through co-operation we are beginning to help ourselves, and are getting a price for our products that gives us a fair interest on our investment, the manufacturers call us all sorts of names, "trusts" and such things, and charge that we are ruining the whole world that are consumers of cotton, and that we can raise cotton at five cents and make money, etc. Of the Hon. Harvie Jordan too much cannot be said in praise for bringing the farmers and the bankers of the South into such close union and to feel the mutuality of their interest. In my opinion, this feeling will continue to grow as the years go by, and that the South will more and more have a controlling voice in the sale of its products. I never expect to see another crop sold at less than the cost of production. When too much is marketed and the price gets low it is easy to call a halt and store; cotton keeps better than wheat, corn or any other farm product. Now there is one other thing, if tried, will add much to my happiness, and that is for a lot of the Northern manufacturers who are always talking about cheap cotton to come South, buy lands and fool with free negroes or any other kind of labor, and, getting the experience at first hands, raise or attempt to raise their own cotton for manufacture. How much valuable experience they would get! Do you know if we had to pay the same price for labor on the farm that is paid at any other kind of work we could not get out even at 10 cents. I pay \$1.25 to \$1.50 in our guano factory per day, and pay the same class of labor \$13 a month, or 50 cents a day, on my farm. I believe when the farmer and the manufacturer get to know the conditions under which each has to labor that there will be more of a feeling of helpfulness existing between them. Well, I have digressed from the subject and the inquiries asked me, but it may not be amiss, as we would all love each other better if our knowledge of each other and our conditions was increased.

#### Foolish Enough to Speculate in Cotton Futures.

L. P. Hillyear, vice-president and cashier American National Bank, Macon, Ga.:

I think the acreage in cotton in this vicinity this year will be as great as it was last year, if not greater. I think the year's campaign in diversification will be duplicated this year, and that the farmers will have the co-operation of the banks to the same extent as last year. Farmers in this vicinity are planting more corn, peas and potatoes and raising more hogs than usual. The financial condition of our farmers in this vicinity is better than it has been since the Civil War. The investing of their surplus money seems to be a problem for them. Many of them make the mistake of investing in more land, while many more are foolish enough to speculate in cotton futures. If your powerful journal could start a crusade against this last-mentioned evil which would cause our farmers to keep away from the bucket shops you would accomplish a great deal for the South. I really believe that

the growing tendency of our country merchants and farmers to speculate in cotton is one of the worst financial problems with which the South has to contend.

#### Farmers as Lenders.

J. W. Peyton, cashier Cornelia Bank, Cornelia, Ga.:

1. Acreage 10 per cent. more.
2. It is doubtful.
3. Very slowly.
4. Better than ever before; lending their money.

#### Bank Deposits Better Than Ever.

John T. Duncan, president Douglasville Banking Co., Douglasville, Ga.:

1. Acreage is about the same.
2. We feel the diversification will continue as before, and that the banks and planters are in closer touch than ever before.
3. Advancing.
4. Farmers are in better condition than they have been in 25 years, and I believe are making better investments, mostly in lands and good stock. Bank deposits are better than we ever saw them.

#### Diversification Expanding.

Chas. B. Lewis, cashier First National Bank, Montezuma, Ga.:

In my opinion, the cotton acreage in this territory for the present season will be about the same as that of last year. The percentage of diversified farming in this section will be increased about 10 to 15 per cent. The financial condition of the farmers in our section is better than it has been for many years, and the surplus money they are accumulating is being mostly used in improving their farms.

#### Diversification Making Headway.

L. B. Holt, president First National Bank, Sandersville, Ga.:

1. Acreage about the same.
2. Yes, undoubtedly.
3. Slowly, but making some headway.
4. Good; mostly in lands and better facilities for farming.

#### About the Same Acreage.

Boyce Ficklen, cashier Bank of Wilkes, Washington, Ga.:

1. Acreage the same.
2. Practically so.
3. Very little diversification.
4. About the same; mules and grass.

#### Banks Will Co-operate.

William W. Cook, cashier Johnson Banking Co., Wrightsville, Ga.:

1. The same as last year.
2. Yes.
4. Better than ever before.

#### Surplus Crops for Market.

J. E. Dunson, president Lagrange Banking & Trust Co., Lagrange, Ga.:

1. The acreage in our vicinity will be about the same as last year, provided conditions are favorable for planting.
2. Yes; the last year's campaign will be duplicated with greater success, by reason of mutual confidence and strength.
3. In raising supplies, meat, corn, hay, etc., primarily for their own use, though many of them raising a surplus which goes usually to the local market.
4. The financial condition of the farmers in our section is more satisfactory than for years. They are investing their surplus in land, improving their homes, buying better stock, and many investing in industrial enterprises.

#### Raising All Plantation Supplies.

B. Robb, Bank of Louisville, Louisville, Ga.:

1. Don't think it will increase.
2. Yes.
3. Raising all plantation supplies.
4. Financial condition better than for 25 years; investing in lands.

Lands that sold 10 years ago at \$3 to \$5 per acre now bring nearly \$10 to \$20.

Labor is very scarce and high, and we fear this will hurt in making crop; don't see how we can increase acreage without new labor.

#### Cotton and Corn Principal Crops.

B. S. Dunlap, cashier Cordele National Bank, Cordele, Ga.:

We believe the cotton acreage will be somewhat increased over that of last year. There will not likely be any more diversification in farming, as the principal crops are cotton and corn. The general financial condition of the farmers is very good, and the few who have accumulated a surplus seem to be buying additional lands.

#### Rapid Strides to Financial Independence.

W. J. West, W. J. West & Co., bankers, Rome, Ga.:

The cotton acreage will not differ materially from last year, although the scarcity of labor will retard planting, working, and will eventually decrease what would be a good crop. The farmers are getting all financial help asked for from banks, and I think diversification will be carried on about as last year. The present prospect for a good crop of peaches, if it holds, will produce immense revenues to our section. Farmers are buying good mules, investing in land, paying old debts, buying some luxuries, homes being renovated, and altogether they show marked evidences of prosperity. We are making rapid strides to independence financially, the farmers especially getting their share.

#### More Grain Being Raised.

M. H. Couch, president Farmers and Merchants' Bank, Senoia, Ga.:

1. Acreage about the same.
2. I think so.
3. More grain.
4. Good; buying real estate.

#### Banks Will Sustain Growers.

First National Bank, Fort Valley, Ga.:

The cotton crop is not yet planted. The banks will sustain the growers in demanding a fair price for their crop.

#### INDIAN TERRITORY.

##### Great Many People Coming In.

W. J. Smith, cashier First National Bank, Holdenville, I. T.:

The cotton acreage in this vicinity will be at least 10 per cent. greater than last year's. There is practically no diversification in farming in this section of the country as yet; however, we anticipate that something will be done along this line within a couple of years. The financial condition of the farmers, taken as a whole, in this vicinity has improved very materially, as there are a great many new people coming in from other parts of the country, who are buying and improving farms. They have no surplus as yet except in a few instances, and those who have are buying more land.

##### About 15 Per Cent. Increase.

Bank of Bixby, Bixby, I. T.:

The acreage will be slightly increased; probably 15 per cent.

##### Cannot Afford to Leave the Staple.

T. P. Martin, Jr., cashier First National Bank, Marlow, I. T.:

I look for no decrease in acreage in this immediate territory for years to come, for reason that this is a new country, and more land is planted each year. If the 505,000 acres of pasture land be opened up next year will also increase greatly over this. Cotton is a staple crop down here, and farmers cannot afford to leave it or experiment by decreasing their acreages. Their crops as security for mortgages are their main dependencies to secure money from spring till fall, cotton being of such a nature that it is easily traced and identified. A cotton farmer is seldom well off in a new country, espe-



cially around here, and usually spends his crop before he markets it by borrowing from the banks. Diversification will undoubtedly increase as time rolls by, especially towards raising of hogs and other live-stock, thereby saving corn and other grain to the farmer, instead of selling to the speculator. The farmers in our community are in better shape than for past five years. This is greatly owing to the fact that they had virtually nothing when they came here to try for homes in the Comanche country of Oklahoma Territory, west of us. As fast as they can they are buying homes or leases.

#### Conditions of Farmers Good.

C. B. Fletcher, secretary Eufaula Trust Co., Eufaula, I. T.:

There will be about the same amount of cotton grown this year as last; conditions now good. Farmers have no surplus with us; new country.

#### Co-operation Not to Be Duplicated.

First National Bank, Henryetta, I. T.:

1. Increase, we think.
2. We do not think it will be duplicated.
3. Very good; stock and lands.

#### Acreage Slightly Heavier.

F. A. Vickery, cashier Citizens' Bank of Minco, Minco, I. T.:

1. Acreage about the same; if anything, slightly heavier.
2. Corn and hogs.
3. Good; improving their farms.

#### Saving to Buy Homes.

Edward McKenna, president National Bank, Poteau, I. T.:

1. Acreage about the same.
2. Yes.
3. Potatoes and corn.
4. Financial condition is good; saving to buy homes when Statehood comes.

#### Adding to Acreage.

Weleetka National Bank, Weleetka, I. T.:

1. Acreage one-third to one-fourth more.
2. Good; in land.

#### Acreage Will Be Larger.

H. M. Dunlap, president Choctaw National Bank, Caddo, I. T.:

The acreage in cotton in this immediate section will be larger than last year for two reasons:

First—That this country is only beginning to be developed, and a large acreage of new land is put in each year and practically all of this is put in cotton.

Second—Excessive rain has made it impossible for the farmers to sow their oats or plant their corn, so that the acreage of both these crops is likely to be smaller, and much of the land intended to be put in these crops is likely to be planted to cotton.

In this immediate section, on account of the peculiar conditions prevailing in the Indian Territory, little progress has been made in the matter of diversification, and the farmers, as a rule, are not in as good shape for making their crop as usual from a financial standpoint, owing to the short crop of cotton last year and bad weather conditions, and this may result in less new land being put in this year than last.

#### Very Little Variety.

J. M. Browning, cashier First National Bank, Mill Creek, I. T.:

1. About the same in acreage.
2. Think not; about the same as last year.
3. Very little.
4. About the usual condition; very little surplus.

#### A Rule to Diversify.

Thomas H. Dwyer, president Citizens' Loan & Trust Co., Chickasha, I. T.:

1. Acreage will be about the same as last year.
2. Yes.

3. All farmers here have made it a rule to diversify, raising cotton, corn, cattle, hogs, poultry and all kinds of truck, which has always found a ready market here.

4. The financial condition of the farmer is better now than it ever has been here, and he is investing his surplus funds in the improvement of his farm generally.

#### Farmers Given a Setback.

D. C. Hughes, cashier Western Security Co., Adair, I. T.:

The season in this section is very backward, and has given the farmers a general setback, and the prospects are gloomy for cotton this year. The season continues cold and wet, and the farmers are late with all farm work. The prospects for a full acreage in any of the crops are not flattering. The financial condition of the farmers are bad, having had three consecutive failures, and the majority have no surplus.

#### More Corn and Potatoes.

N. P. Brewer, cashier First National Bank, Quinton, I. T.:

1. In this section of country we will have a reduction of 25 per cent.
2. Yes, sir; we are urging diversification.
3. More corn and potatoes.
4. Country is in better financial condition than for years.

#### Many Improvident.

C. B. Burrows, president American National Bank, Tishomingo, I. T.:

The acreage of cotton in this vicinity will be larger than last year, both by reason of increase of cultivated area and because landlords who hold the land by leases sublet to tenants from whom they want large immediate returns. Diversification will not prevail here. Banks will offer the same inducements as were offered last year for aiding growers in sustaining the price, but in this section little advantage will be derived by tenant farmers; they want to sell when they have anything to sell for money to pay debts and go visiting. As a class this country is filled with improvident renters, who own no property except team and wagon, and who migrate from one farm to another. People who have come in to settle are holding their funds to buy lands if the government of this country will ever make laws to favor such purchases and give titles. It would not seem to me that this section would aid you much in arriving at figures on which to base a prediction for the coming crop. However, it may be stated with certainty that all the cotton that can be planted and grown will be planted about here.

#### More New Ground to Be Planted.

J. H. Kennedy, cashier Bank of Commerce, Wetumka, I. T.:

It is a little early to report on acreage of cotton. However, I think it will be about the same as last year. More new ground will be planted and possibly as much old land.

#### Looking for Statehood.

W. F. Miller, cashier First National Bank, Hugo, I. T.:

We think that the acreage of cotton in and tributary to this place will be increased about 25 per cent. over last year, and we fully expect all lines of business to increase in keeping with crop indications. Should we get Statehood we will be in the midst of a great rush for land, and we anticipate a large increase in the volume of business in our line.

#### LOUISIANA.

##### Short Crop Last Year.

Citizens' Bank of Louisiana, New Orleans, La.:

1. About same acreage will be planted.
2. All interests are being educated to diversification.

3. Feedstuffs and truck farming.

4. Very short crop of cotton in Louisiana last year.

#### Looks for an Increase.

W. J. Bayersdorffer, cashier First National Bank, Shreveport, La.:

It will be impossible for us to answer your question in regard to the acreage in cotton of our vicinity at the present time, as in very few instances has cotton been planted. We are informed, however, that the acreage in cotton will be larger this year than last. We do not believe that there will be any increase in the diversification of the crop in this section. The general financial condition of the farmers in this vicinity is good.

#### Will Plant Below the Average Crop.

J. R. Matthews, cashier Bank of West Feliciana, St. Francisville, La.:

This parish (West Feliciana) will plant about the same crop of cotton as was planted in 1905, which was 10 per cent. below the average crop. Don't think our farmers will plant anything besides their regular crop of cotton and corn. Diversification of crops in this parish is not the rule, but the exception. We had a very bad year last year, but our farming interests are in good shape and are taking good care of themselves.

#### Farmers Have No Surplus Cash.

Bank of Benton, Benton, La.:

The acreage planted to cotton will not differ materially from last year's crop. The high price of cotton last season will, perhaps, result in a slight increase in the acreage this season. Only the usual amount of corn and other products is being planted. On account of the small amount of cotton made last season, the farmers really have no surplus with which to make investments. The general financial condition of the farmers in this vicinity is considerably below the average of former seasons.

#### Raising More Feed.

J. J. Stovall, first vice-president Dodson State Bank, Dodson, La.:

1. Acreage about the same.
2. It will.
3. Raising more feed.
4. Very dead; no surplus much to invest.

#### Increase of About 10 Per Cent.

S. P. Hulbert, cashier Bank of Zwolle, Zwolle, La.:

Cotton acreage will be increased this year over year before about 10 per cent. Diversification is taking shape in this country, and while it will take some little time, it is bound to come. Farmers on this district have very little if any money. Banks will have to carry them over from last year's loans (which are secured by the best of real-estate mortgages). Diversification is on the lines of trucking and fruits, and, in addition to this, more attention is being paid to live-stock, as this is one of the best things from which good results can be obtained, as our country is adapted to this class of farming more than for anything else at this time. Give us a little time and we will come to the front good and strong, and look for good results inside of the next three years.

#### Handicapped by Labor Scarcity.

Royal Dennis, cashier Bank of Logansport, Logansport, La.:

The estimate I furnished you last fall, giving about 50 per cent. as the average yield of cotton in the upper Sabine valley, as compared with a normal crop, was too high by 15 or 20 per cent. It is safe to say that 65 per cent. of last year's crop of cotton, as well as corn, was lost by reason of excessive rainfall and other damaging weather conditions. For this reason, and also because of the great activity in timber and lumber, many farmers

have turned their attention to getting out timber as a means of livelihood, without which they would in many instances have been sorely pressed. Fully 25 per cent. of land that would ordinarily be cultivated will this year be uncultivated. Farmers in many instances will continue the getting out of timber throughout the season. The growth of diversified farming in this section is slow, but steady, and will not make an important showing for some years. Generally speaking, the financial condition of farmers is fair, despite crop failure. Surplus of means is not at present being invested, though with the clearing out of the balance of timber there will follow an awakened interest in agriculture if supported by favorable seasons and fair prices for product. The farmer this year is handicapped by want of laborers, who are absorbed by the many small and large saw-mills offering better wages than farmers feel safe to pay. Tenants are also scarce for the same reason. The season thus far is very favorable indeed for the making of the two principal crops.

#### Endeavor to Help Those in Need.

George E. Wycoff, cashier Many State Bank, Many, La.:

The acreage in cotton will be somewhat reduced in this section as compared with last year. Farmers here have already broken and prepared their lands, and intend to use commercial fertilizer in order to make what cotton they do plant come in before the boll-weevil has a chance to do much damage to the crop. If rain and bad weather does not come to this section, as was the case last year, the crop will come in comparatively early. We endeavor to encourage our farmers in diversification, and they are beginning to see that it is to their interest to grow more of the actual necessities of life and less cotton, and we think this year will show a big improvement along that line. While there is a strong demand for money in this section, a great many of the farmers have some money in the banks, but we endeavor to help those who are in need.

#### More Corn and Cane.

People's Bank, Plaquemine, La.:

1. About the same.
2. We believe so.
3. More corn and sugar-cane being raised.
4. No surplus money, but in easy circumstances.

#### Very Little Diversification.

Bank of Leesville, Leesville, La.:

2. I think so.
3. Very little.
4. About an average of last year.

#### MISSISSIPPI.

##### Improving Homes and Helping Neighbors.

H. J. B. Lann, president Monroe Banking & Trust Co., Aberdeen, Miss.:

I estimate the acreage in cotton in this section will be from 5 to 10 per cent. less than last year, on account of scarcity of labor; besides, there is a disposition among the most substantial farmers to increase acreage in corn and other necessary home supplies, which will, of course, tend to further reduce cotton acreage. The financial condition of our farmers is quite satisfactory; would say at least nine-tenths of them will require no assistance, and such as do need money accommodations have no trouble in obtaining all they want from our banks, with whom they are on good terms, and who will in the future, as in the past, render needed assistance in holding and marketing crop to the best advantage. Our most successful farmers are investing their surplus in real estate, improving their homes and in loans to their less fortunate neighbors. All things considered, we are in excellent financial condition, and writer will be greatly surprised

if real estate don't advance to double present value within the next six or eight years.

#### Weather Perfect Thus Far.

J. F. Province, Coffeeville Bank, Coffeeville, Miss.:

The farmers of this section are not in as good financial condition as they were last year, since they made a short cotton crop and almost no corn last year. They are having to buy more corn than for many years, which will cause them to have to borrow a great deal of money. We think the acreage planted to cotton this year will be about the same as that planted last year, for the following reasons: The short corn crop will cause more oats and corn to be planted than usual. Labor is scarce, and the high prices paid for day labor by the mill and timber interests have drawn heavily on the farm supply. 25 per cent. of the cotton planted last year was abandoned in this county on account of the excessive wet weather. This land is being prepared for cultivation this season, and should add materially to the yield should the season be favorable from now to the end of season. There has been more preparation than an average this year, as weather has been perfect thus far. There will also be more fertilizer used than ever before, both for corn and cotton, which will add some to the crop prospect.

#### Trying to Raise More Food Products.

John F. Osborne, cashier Bank of Corinth, Corinth, Miss.:

I think the acreage in cotton this year in this county will be larger than it was last year, possibly 10 to 25 per cent. larger; still at the same time the farmers of this county are diversifying their crops and trying to raise more of their food products than they did years ago. I think the diversification in farming is progressing a good deal in the cotton country, as a rule. The general financial condition of the farmers in this country, I am sure, is better than it has been in many years. They are investing their surplus earnings in things to improve the land, such as improved machinery and better stock.

#### Against Curtailing Production to Enhance Prices.

Jas. Robertshaw, president Citizens' Bank, Greenville, Miss.:

The acreage in our vicinity will not be in any way diminished. What may be devoted to an increase in cereals will be triply compensated for by the amount of land already prepared for cultivation. The banks, merchants and planters do not appear to take seriously any concert of movement to force prices higher than conditions prevailing at the time of sale may indicate. Perhaps more corn and oats are being planted than formerly, but not sufficient to threaten a reduced acreage of cotton. The general condition of planters would indicate the necessity of a large cotton crop to meet the reverses of last year. We are not in accord with the idea of curtailing production to enhance prices.

#### Cotton and Corn to Increase.

R. C. King, cashier Bank of Commerce, Greenwood, Miss.:

I would state in a general way that conditions in the Delta are different from those of other sections of the State. Cotton has always been the principal crop here, and with the labor used there is no evidence, so far as I am able to ascertain, of a desire to change from the present system to one of diversification. From the present outlook it appears that the acreage in both corn and cotton will be increased this year about 5 per cent. over that for the year 1905. This is due to the fact that the ground was so wet last year that part of it could not be planted, whereas conditions have been favorable

this year for early plowing and the planters have been able to take advantage of these conditions because of having finished gathering the short crop of 1905 earlier than they usually finish gathering. The general financial condition of our farmers is good, but they are, of course, feeling the pressure resulting from last year's short crop. Their surplus funds are generally being used to extend and otherwise improve their farms.

#### Banks Not Encouraging Increase.

John W. Cox, cashier Bank of Madison, Madison, Miss.:

The acreage of cotton here will be increased probably 10 per cent. While the cotton acreage will be increased slightly, there will be diversification, the farmers planting more corn, potatoes and hay crops. The banks are not encouraging an increase in the cotton acreage. The general financial condition of the farmers is not very good, but are buying fertilizers for their crops on time notes, and very few have any surplus funds to go upon.

#### Want of Laborers the Worst Trouble.

W. G. Simpson, cashier Citizens' National Bank, Meridian, Miss.:

From what I can learn the acreage will be about the same as last year, and the diversification about the same. The worst trouble the farmers will have will be the want of laborers. The farmers, as a rule, are in very good condition, and a great number of them are able to make this year's crop without having to call on the banks for advancement.

#### Banks Not Dictating to Farmers.

R. F. Learned, president Britton & Koontz Bank, Natchez, Miss.:

In this immediate section the banks have not assumed to dictate to the planters how they shall conduct their business. Planting operations are two to three weeks ahead of last season, and, conditions favorable, there will be large increase in cotton acreage over last season. There is and has been little diversification beyond food crops necessary for the plantation, and there is little evidence of improvement in this respect.

#### Will Try Beans and Other Truck.

B. R. Kuykendall, cashier Bank of Kemper, Scooba, Miss.:

I think the cotton acreage planted in this vicinity will be about the same as it was in 1905. A number of farmers in this vicinity tried beans and other truck growing last year, but on account of the wet year only met with poor success. Some of them will try the same thing again this year. The financial condition of our farming class is fairly good, and we find there is a disposition among many of them to devote more time to stock and feed, and not quite so much to cotton.

#### Field Labor Much Scarcer.

T. J. Poitevent, president Shelby Bank, Shelby, Miss.:

Field labor is much scarcer than last year, and our acreage in cotton will be fully 10 per cent. less than last year, but our farmers expect to make more cotton, as they are further advanced in field work now than they were in June, 1905. Our planters and farmers will plant more corn than heretofore. Farmers and planters in the Delta do not diversify; they always raise all the cotton they can without fertilizing, and try and raise just enough corn to make the next year's crops with. They are in a good financial shape; none held their cotton.

#### A Typical Delta Outlook.

B. W. Griffith, president First National Bank, Vicksburg, Miss.:

The acreage in cotton in this section will probably be increased over last year about 10 per cent. In the Delta, which is the chief section tributary to this city, but

little diversification of crops obtained. Corn and oats are the chief products other than cotton, and those cereals are not raised for market, but for home consumption. The general condition of the farmers is good. Any surplus accumulated by them is usually used by them in extending their farming operations.

#### To Plant a Normal Acreage.

W. Thomas Rose, cashier American National Bank, Vicksburg, Miss.:

We see very little difference in the preparations for planting cotton for the coming season, and think the plan is to plant a normal acreage. There is very little diversification in this region. The general financial condition of the farmers in this vicinity is very good.

#### Can Handle the Crop With Little Help.

Arthur Dugan, cashier First National Bank of West Point, West Point, Miss.:

In my opinion, the acreage in this section will probably be about the same as last year, possibly a slight increase. There is a tendency to diversify, and this tendency is growing. The banks are in better condition than ever before, and are able to handle the crop with little or no help. Truck farming is on the increase, and more potatoes and corn planted, more cattle raised. The financial condition of the farmer appears to be better than for a long time; better than I have known before. Investments are usually made in land and in improvements on it. Some are becoming money lenders.

#### Improving the Land.

W. C. McMillan, assistant cashier Bank of Aberdeen, Aberdeen, Miss.:

1. Think some less.
2. Yes.
3. Corn and hay.
4. Good; improvements in land.

**Raising More Truck and Feedstuffs.**  
F. F. Becker, cashier Commercial Bank, Brookhaven, Miss.:

1. About 10 per cent. increase.
2. Yes.
3. Truck and feedstuffs.
4. Good; investing in land and general improvements.

#### Desire to Own More Land.

J. C. Stanley, president Bank of Booneville, Booneville, Miss.:

The acreage in cotton in this section will be about as last year. There is a scarcity of labor, and the efforts of our farmers will be to increase the use of fertilizers and make more cotton per acre. The average price received for cotton this season has been profitable to our people, and as a rule all are in fine financial condition, and their desire is not so much to diversify as it is to own all the land that "jines him."

#### Have a Nice Start.

R. H. Crutcher, cashier First National Bank, Clarksdale, Miss.:

I know nothing whatever about these matters, and I might mislead somebody; anyway, we have a nice start, but can't tell what will be put in cotton or corn.

#### Quarantine an Influence.

W. H. Negus, president First National Bank, Greenville, Miss.:

1. Acreage about the same.
2. We think so.
3. Not as prosperous this year on account of quarantine and short crops.
4. In forage crops.

#### Building Better Houses.

Merchants and Farmers' Bank, Holly Springs, Miss.:

1. Acreage is about same as last year.
2. Yes.
3. They are planting more corn.
4. About same as last year; they are spending their money and building better houses and buying better stock.

#### Likely to Plant All They Can.

H. J. Ray, cashier Grenada Trust & Banking Co., Grenada, Miss.:

I believe the people in our territory are going to plant all of the cotton that they possibly can with the labor, time and weather that they have. I think there will be 15 per cent. more cotton planted this year than last. The farmers in our country are in very good shape, and are buying more land with their surplus. They are all getting a good start for the new year, and all are going to work hard to offset the failure of last year in our section.

#### Not Regulated.

Merchants and Farmers' Bank, Macon, Miss.:

1. Acreage is 10 per cent. increase.
2. No.
3. None.
4. Good; in land.

#### About the Same Acreage.

R. L. Longino, cashier Merchants and Planters' Bank, Silver Creek, Miss.:

1. Acreage is about the same.
2. Yes.
3. Truck growing.
4. Fair; are investing in real estate.

#### Farmers Just About Out of Debt.

First National Bank, Canton, Miss.:

1. Acreage 15 per cent. increase.
2. Very little diversification in this section; mostly corn and cotton.
3. Very slow; very little corn raised in this section last year.
4. Fairly good; just about out of debt, and those who are making money are investing in cotton, lambs and mules.

#### Success to Be Duplicated.

W. I. Pickens, president Bank of Commerce, Lexington, Miss.:

1. The acreage in cotton in this county will be increased from 5 to 7 per cent. over last year's acreage.
2. I think that the success of last year's campaign for diversification of crops will be duplicated this season, and that they will have the united support of the banks and merchants.

3. The tendency now is to make cotton a surplus crop and to raise more food crops and to live at home.

4. The farmers in this section, as a rule, are in good financial condition, and what investments they are making are in land.

#### Interest in Co-operation Seems Lost.

J. M. Taylor, cashier Mississippi National Bank, Port Gibson, Miss.:

1. Acreage 5 per cent. or more increase.
2. No, not at all; interest seems lost.
3. Growing more feed and raising meat.
4. Farmers' indebtedness reduced, perhaps, 20 per cent. as to mortgages.

#### Too Early to Estimate.

R. P. Turner, cashier Bank of Tutwiler, Tutwiler, Miss.:

It is too early to give the required information; will try to give you the same later.

#### Buying City-Made Meat and Corn.

C. A. Johnston, president First State Bank, Columbus, Miss.:

Cotton planting has not begun in this vicinity, though the preparations indicate that all will be planted that it may be possible to put in. This would indicate an increase over last year of, say, 10 per cent. The diversification of crops, so ardently advocated in the cities, did not pan out in the country, as all our farmer friends seem to come to town with empty wagons and return loaded with city-made meat and corn. "The surplus reserves" of the banks are being borrowed where it is possible, and is being remitted out of the country for corn. It would seem that "diversification" is a decided success as a failure, and that the campaign of education was one of neglected opportunities.



It looks as if the farmers last season either broke even or lost money. Their investments as seen through the bank ledgers seem to be almost wholly in Western corn, meat and mules, while government and local securities are in total neglect. Last year Mississippi suffered from excessive rains from February to September; cotton was cut in production 40 per cent., and corn was a failure. It would appear that no effort was made to produce anything else; if so, the failure was even more pronounced. This is a marvel in the face of God's prodigality, as it is possible to produce every fruit and vegetable here that thrives on His footstool.

#### Having a Hard Time to Tide Over the Year.

Simon Moses, president Merchants and Planters' Bank, Natchez, Miss.:

The farmers in this section of Mississippi and Louisiana depend almost exclusively upon the cotton crop. With but few exceptions they must purchase all supplies and feed used. The past season was one of the worst that this immediate section has known, owing to the fact that hardly one-third of an average crop was raised; not resulting from a reduction of acreage, but from conditions of the weather. As a result the farmers this year have no surplus to invest, and in some cases are having a hard time to tide the year over. However, we think that as a result of the present good prices of cotton the cotton planted this year will be as much or more than any year in the past. Should prices hold up and conditions be favorable to market the coming crop, we think that the coming year will again put the farmers on their feet. The above conditions, of course, apply only to this immediate section. Notwithstanding the above, real estate has increased in value and business generally has been good.

#### Slight Increase in Fertilizer.

Leon Tyrone, cashier Bank of Blountville, Prentiss, Miss.:

The preparation for the next cotton crop varies very little from last season. The acreage is about the same, with a slight increase of fertilizers; however, this is being soaked out of the soil by the constant downpour of rain, which promises to duplicate last year's late season. The campaign for diversification is being carried on with success, and there is perfect harmony between the banks and growers. This is the first year that our farmers have undertaken to diversify, resulting in the building of a canning factory, just being completed. The farmers are in the best financial condition they have ever been, and are not investing their surplus much, but seem to be taking care of it as a reserve fund, yet they are improving their lands and seem to be very much encouraged.

#### Improved Tools Coming In.

H. W. Watson, cashier Lexington Banking & Real Estate Co., Lexington, Miss.:

1. Acreage about same or slight increase.
2. Banks will not encourage much holding above 10 cents at any time. Will assist good men at all times. Will advise home support and cotton for surplus.
3. More corn, peas, potatoes are to be planted and stock raised.
4. Very good. Improved tools are coming in, better work-stock, new and more comfortable homes, ditches and fence rows cleaned.

#### NORTH CAROLINA.

##### Weather to Control to Great Extent.

W. C. Wilkinson, cashier Merchants and Farmers' National Bank, Charlotte, N. C.:

I believe it is impossible to give you any intelligent idea as to the acreage that will be planted in this vicinity this year, as the weather will to a great extent control the acreage to be planted. Any opinion given

you now would simply be a speculation, and I believe would be without real value to your paper. The banks in this section will give to the farmers all the support needed in making and marketing their crop at maturity to the best advantage. I believe that cotton will be for a long time to come the principal product of the farmers in this section, although there is now planted by the farmers sufficient corn and other grain for their own use, with possibly a small surplus of corn. As to the financial condition of the farmers, I will say that it is better than at any time for the past 40 years. They are bringing their land up to a higher state of cultivation and equipping their farms with modern machinery and increasing their investments in live-stock. I believe that the above answers about cover the ground, and later on, if you desire further information in regard to the acreage in this section and the amount of fertilizer used this season, I will be glad to have you communicate with me.

#### Purchasing More Farming Land.

Wm. T. Old, cashier First National Bank, Elizabeth City, N. C.:

It is my opinion that the acreage planted in cotton in this vicinity will be much greater than last year. I think the co-operation of the banks and growers will continue to as great, if not a greater, extent as that of last year. The financial condition of the farmers in this section is stronger than for many years, and they are investing a great deal of their surplus money in the purchase of more farming lands.

#### May Be a Decrease in Acreage.

M. McD. Williams, cashier Bank of Faison, Faison, N. C.:

The acreage in cotton may be decreased under last year. Our people are a unit in carrying out the plans as outlined by the Southern Cotton Association. Their condition is good. Any surplus cash is being put into betterments of their present holdings. We have had a diversification of crops for some years, but the spirit is growing to add new crops each season.

#### More Attention to Trucking, Corn and Forage.

A. J. McKinnon, vice-president Bank of Maxton, Maxton, N. C.:

The acreage will be practically the same this season as last. There will be more attention paid to trucking, corn and forage crops. The financial condition of the farmers is very much improved. They have hardly accumulated much surplus yet, because they have been in a deplorable condition, but they are improving their farms, buildings, stock and general equipment.

#### About Same Acreage.

E. G. McLurd, treasurer Gaston Loan & Trust Co., Gastonia, N. C.:

1. Acreage about same.
2. Yes.
4. Good; in improving farms and homes.

#### May Be Less Acreage.

C. G. Carr, cashier Greenville Banking & Trust Co., Greenville, N. C.:

1. No less; possibly 5 per cent. increase.
2. About the same.
3. Raising provisions, grain, etc.
4. Good financial conditions; investing in lands and improvements thereon.

#### Tobacco and Grain Taking the Place of Cotton.

J. T. Hooks, president Bank of Fremont, Fremont, N. C.:

It is a little early to formulate a correct opinion. We have a backward spring; lots of rain. However, it is our impression that our acreage in cotton this year will be about the same as last. We believe that diversification is coming to the front. While there has been no marked

change in our farmers, some few are leading the move, and are finding it profitable. We feel sure that in the near future it will be practiced by our farmers. Our banks stand ready at all times to give whatever encouragement they can to the farmers in their section. In our vicinity tobacco and grain is taking the place of cotton to some extent. It is a pleasure to say that our farmers generally are in a healthy condition, financially speaking, and are investing their surplus in real estate (town property and farming lands).

#### Buying Up-to-Date Implements.

R. H. Alford, cashier Bank of Kenly, Kenly, N. C.:

1. About the same acreage as last year.
2. Yes.
3. Condition financially better; investing in farm improvements and up-to-date agricultural implements.

#### Slight Advance in Acreage.

W. H. Griffin, cashier Bank of Liberty, Liberty, N. C.:

1. Acreage 115 per cent. of last year.
2. Yes.
4. Good; in more lands.

#### Life Insurance Attractive.

J. E. Sherren, president Bank of Mooresville, Mooresville, N. C.:

1. Acreage about same.
2. Yes; I think so.
3. In small grain crop.
4. Condition fine; investing in stocks, life insurance and buying lands.

#### Acreage Not to Be Increased.

M. L. Ham, cashier Bank of Morven, Morven, N. C.:

The acreage in cotton will not be increased in this vicinity as compared with last year. The best growers, encouraged by the merchants and banks, are insisting on diversification of crops so as to keep acreage in cotton down, and we think will be successful in this vicinity. The diversification in this section will consist in an increase in acreage in corn, peas and small grains. The farmers in this vicinity are in better shape financially than they have been in past 15 years. Their surplus is generally invested in the improvement of their homes and farms and better stock.

#### Planting More Grain.

J. A. Costner, cashier Mt. Holly Bank, Mt. Holly, N. C.:

1. The general opinion is that acreage will be about the same.
2. Yes.
3. Grain.
4. General condition good; don't know as to investments.

#### Growers Fully Understand Value of Diversification.

W. H. Hunt, cashier First National Bank, Oxford, N. C.:

The cotton acreage in this section will be about the same as last year. We think the growers fully understand the importance of diversification, and will practice it more. The banks are lending full support to the farmers when desired. The farmers in this section are in better financial condition than ever before, and are buying land with their surplus money. Only a small part of this county (Granville) is planted in cotton.

#### Farmers in Better Condition.

Clarence Latham, cashier Bank of Plymouth, Plymouth, N. C.:

1. Acreage about same or small fraction more.
2. I think so.
3. Progressing to some extent.
4. Better than for long time.

#### Outlook Propitious for Comfort.

J. J. Thomas, president Commercial and Farmers' Bank, Raleigh, N. C.:

The acreage will be about the same as last year. Even should a desire prevail to

increase the acreage, don't think it can be done, on account of the bad condition of labor and the weather up to the present time being unfavorable for the preparation of a big crop. The diversification of crops this year will be greater than heretofore, being convinced that it is the true plan for the farmer to pursue. At the same time, there is a manifest desire to use more fertilizers, so as to have a limited amount of labor produce a greater quantity of cotton. The general financial condition of the farmers is much better than it has been; not that they have so much surplus to invest, but they have been using their gains in the liquidation of old liabilities; so the outlook is propitious for creating a surplus in the near future which will find its way in the avenue of investment of some kind.

#### Prospect of a Slight Increase.

J. C. Braswell, president Planters' Bank, Rocky Mount, N. C.:

There is a prospect of a small increase in cotton acreage, but very slight. There is a growing sentiment to diversify the crops. The farmers will receive the full co-operation of the banks and merchants. This co-operation and diversification of crops will very greatly regulate the cotton acreage. The farmers show general financial improvement, and are spending part of their accumulations in enriching their lands and improving their stock, buildings, etc. There is a growing tendency to make crops that require less labor, as the scarcity of labor is more felt than ever before.

#### Stock-Raising the Chief Industry.

T. J. Carson, Jr., cashier Bank of Sparta, Sparta, N. C.:

No cotton at all is raised in our county. Ours is a diversified agriculture, no one thing having a predominance. Stock-raising is our chief industry. Our farmers are prosperous, and but for the fact that we have no railroad would be in fine condition.

#### Peanuts Attractive.

Bank of Tarboro, Tarboro, N. C.:

1. Acreage about the same.
2. Yes.
3. In this section, peanuts.
4. Good; land.

#### True Friends of the Growers.

T. E. Holding, cashier Bank of Wake, Wake Forest, N. C.:

The acreage will be about the same, though much depends upon the weather from now on. The cold weather and rain are retarding early plowing. The farmers having realized the Southern Cotton Association and the bankers' committee to be their true friends, they, with additional encouragement from local banks, will give this year increased support to diversification and co-operation on any practical measure in their behalf. The farmers here are diversifying more and more, planting more corn, sorghum, potatoes, peas, etc. Hence raise more hogs, cows, chickens, home supplies, etc. Their financial condition is better; investing their money in lands and loaning it to each other.

#### No Diversification.

W. R. Smith, cashier Bank of Weldon, Weldon, N. C.:

1. Too early to tell.
2. We think not.
3. None here.
4. Very good indeed; in home lands and property.

#### Investing in Improvements.

A. M. Dumay, cashier First National Bank, Washington, N. C.:

The acreage of cotton will be fully as large in this section as last year. We believe that the farmers will have the support of the bankers and merchants as heretofore. The farmers in this section are

planting the usual crops other than cotton. The general financial condition of the farmers in this section is better than ever before. Their surplus is being invested in improvements on their farms.

#### Peanuts to Vie With Cotton.

Wm. H. S. Burgwyn, president First National Bank, Weldon, N. C.:

1. It will be substantially the same as last year.

2. Yes. The campaign will be much more thorough than last year, and the advisability of diversification will be more discussed and its advantages more regarded than ever, and the necessity of keeping down to a reasonable limit the cotton crop will be argued on all occasions through the county and State organization of farmers, which has never been so perfected as at present.

3. Our farmers are more resolved than ever to make their own supplies, and peanuts will vie with cotton as a "money crop." Labor in this section, or rather the want of labor, will play an important part. Our farm labor is yearly getting scarcer; the young negroes largely eschew the farm for town and city life.

4. Our farmers were never in so prosperous a condition. They invest generally in other lands and to some extent in cotton-mill stock and in loans to their neighbors.

I avail of this letter to express my lively appreciation of the great work you are doing for the South. What we want is intelligent farm labor. We could make as much again if we had intelligent laborers on the farm. The negro does not improve as a farm laborer.

#### For Closer Co-operation.

W. F. Bristow, cashier Bank of Rowland, Rowland, N. C.:

1. The increase here will be about the same; farmers owning their own lands will not increase; some are decreasing and some tenants are increasing.

2. Our farmers, merchants and bankers will co-operate more closely than ever before.

3. Our corn crop being short last year, our farmers have increased their oat and corn crop.

4. The financial condition of our farmers is better than it has been for years. They are buying more lands, building better houses, buying better stock and farming implements.

#### Farmers Are the Wealthiest Citizens.

A. L. McGowan, cashier Bank of Duplin, Wallace, N. C.:

1. Comparatively the same.

2. Banks and farmers stand together here. The farming element furnishes our deposits.

3. Diversification of crops has even been adhered to here.

4. Our farmers are our wealthiest citizens. Much of the surplus money is on interest at 4 per cent. in bonds.

#### Labor Question Harder to Solve Each Year.

E. O. McGowan, cashier Elm City Bank, Elm City, N. C.:

I do not think there will be an increase in the cotton acreage as compared with 1905; if any decrease, it will not be material. The fact is our farmers have been planting about all the cotton they could cultivate with the labor they could command, and the labor question becomes harder to solve each year, thus becoming a factor in preventing any very great increase in the size of the cotton crop. The year 1906 finds the grower and banker occupying relatively the same position as 1905, and the plans and arrangements of last year will probably be duplicated with larger success than heretofore as the parties interested become more nearly in touch with each other. So long as the farmer

adheres to the diversification of his crops, and the majority of our farmers are doing so now, and thereby product supplies sufficient for home support, he will hardly be able to extend the area planted to cotton very much until conditions change. The planters in my locality are the most prosperous part of our population. They have made money for the last few years and are improving their homes, using better teams and improved implements, educating their children and enjoying their earnings in various ways, beside in many instances putting snug balances in bank, all of which they richly merit, for they are a big-hearted people full of pluck and good-will.

#### See the Advantage of Diversification.

I. W. Mitchell, assistant cashier Bank of Youngsville, Youngsville, N. C.:

The acreage will not be increased in cotton over last year, but the acreage in tobacco will be increased, as the light sandy soils of this section is better adapted to tobacco than cotton. Diversification and co-operation of the banks and growers will about equal that of last year. The farmers see the advantage of diversification in farming, and as far as practicable will plant more of their lands in leguminous crops, peanuts, cowpeas, clovers, vetches, etc., which very much improve the farm and furnish a source of revenue by raising stock for the market. The condition of the farmers in this section was never better, and this condition is plainly shown by the appearance of their homes, farms and improvements in farming utensils and stock.

#### OKLAHOMA.

##### Getting Better Stock.

Leon L. Hoyt, cashier Citizens' State Bank, Custer City, Okla.:

The cotton acreage in this part of Oklahoma will be about the same as last year, or, if any change, there will be a smaller acreage. Diversified farming is the rule here, and will be followed this year as heretofore. The farmers here are in somewhat better shape financially than they were last year, and are improving their farms and getting better stock with their surplus money.

##### Purchasing Cattle and Mules.

Bank of Agra, Agra, Okla.:

1. Increase in acreage 30 per cent.
2. Yes.
3. Wheat.
4. Fair shape; cattle and mules.

##### Have Been Diversifying All Along.

Robt. Sohlberg, cashier Guthrie National Bank, Guthrie, Okla.:

As yet I do not know what the acreage will be, but do not think it will be any less than a year ago; perhaps a little greater. The banks in this section have not taken an interest with the growers in diversifying the crops, as the growers here have been diversifying their crops all the time. We raise a great deal of corn, oats and wheat in addition to cotton. As to the financial condition of the farmers in this vicinity, will say that as this is a new country and a great many of the farmers came here with very little money, they are as yet not so situated that they can make outside investments. When they have funds to spare they generally improve their property or buy an additional piece of land.

##### Farmers Limited in Operations.

J. O. Blakeney, McLoud, Okla.:

Present indications are that the acreage of cotton will be about same as last year in this vicinity. The planters are generally limited to 160 acres in farm, and generally handle their places without help. This necessitates diversification. Usually the larger acreage is given corn; then, if the farmer has help to justify, the next larger crop is cotton; potatoes and forage

crops then fill up the quota. Neither the bank influence nor the farmers' organization has much to do with the acreage of crops in this section. The farmers are in pretty good financial condition, and will be able to make the crop with a little less help than formerly. Any surplus funds above the amount necessary to make their homes more comfortable are being invested in mares and young mules, as a rule.

##### In Western Oklahoma.

F. P. Johnson, cashier American National Bank, Oklahoma City, Okla.:

From all reports, the acreage in cotton in Oklahoma will be largely increased this year over last. This is especially true in Western Oklahoma, where the lands have been proven to be peculiarly adapted to the growing of this staple. Oklahoma probably pursues a better system of diversification in farming than any other section that I know of, and the farmers are in the main well-to-do and prosperous. A large part of the bank deposits of Oklahoma is made up from the accounts of farmers. With their surplus money they are buying more farming land, and in many cases are buying residences and business property in towns.

##### Weather a Controlling Influence.

Lee Patrick, vice-president Stroud State Bank, Stroud, Okla.:

The acreage of cotton, from present indications, will be from one-third to one-half greater than last year; this, however, may be changed by weather conditions in the next six weeks, as no planting will be done before about April 15. A systematic diversification of farming has not been adopted in this locality. The diversification is yet almost wholly controlled by the price of the various products of this locality and the weather conditions at time of planting. The financial condition of the farmers in this locality is better than at any time since the opening of this country for settlement. The thrifty element of farmers are investing their surplus in cattle, hogs and young horses.

##### Few Dependent Upon Cotton for Bread and Butter.

A. R. Adams, cashier Yale State Bank, Yale, Okla.:

The acreage in this vicinity will be increased by perhaps as much as 10 per cent. This will be on account of the price realized last year. The farmers of our section have always practiced diversification in planting, and they are simply putting in a little more cotton and a little less of other crops. The general financial condition of the farmer is improving, and he is putting his gains into the improvement of his place, as a rule. There is no danger of this part of our Territory ever going into cotton-raising exclusively, although many of our people make it their principal crop. Few of them are entirely depending upon it, however, for their bread and butter.

##### Ought to Come Up With Good Stand.

J. A. Henry, president First National Bank, Altus, Okla.:

1. Acreage is reduced 20 per cent.
2. Yes.
3. Planting small grain.
4. Best have ever been; raising hogs, etc.

We have fine grounds; if we get a few showers of rain next month will have a large oat and wheat crop, and cotton ought to come up with good stand.

##### Co-operation of Banks Stronger.

C. M. Smelser, cashier Bank of Cooper-ton, Cooperton, Okla.:

There will not be any more (if as much) cotton planted this year than in the past season, which was a decrease of 30 per cent, under 1904 crop. The co-operation of the banks will be stronger in urging a diversification of crops. The financial

condition of the farmers is greatly improved over the three past seasons. Surplus is being invested in better improvements, more stock, etc.

##### Turning to Corn and Hogs.

Carney State Bank, Carney, Okla.:

1. Slight increase.
2. Yes.
3. To corn and hogs.
4. Fair and variety in improvements.

##### Twenty-five Per Cent. Less Acreage.

C. B. McIlugh, vice-president Bank of Commerce, Frederick, Okla.:

1. Acreage is 25 per cent. less.
2. Yes.
3. Small grain.
4. Fair; putting surplus, if any, in improvements.

##### Co-operation.

Farmers' State Bank, Glencoe, Okla.:

1. Acreage 15 per cent. greater.
2. Yes.
3. Stock.
4. In land.

##### Not So Dependent Upon Cotton.

T. J. Laws, cashier Jones-Olds Bank, Granite, Okla.:

1. About the same.
2. We should think that it would be.
3. Diversification of crops and not so dependent upon cotton alone.
4. In better homes and improving their farms.

##### Old Land Acreage Decreasing.

City National Bank, Hobart, Okla.:

1. Acreage 10 per cent. increase.
2. Yes.
3. Decreasing acreage on old land.
4. Good; stock and improvements.

##### Impressions of an Increase.

F. J. Hawk, cashier Farmers' National Bank, Lexington, Okla.:

The acreage of 1906 cotton crop will, I think, be somewhat larger than that of the past season. This, of course, is the general impression left by conversing with our farmers at the present, at least. Financial condition of those following agricultural pursuits in this locality seems very good, and principal investments are in real estate and live-stock. Farmers continue to hold together in the extension of their co-operative organizations, with plenty of accommodations for further promoting their welfare, it seems, by the banks.

##### Not Much Surplus Cash.

C. H. Brand, cashier Bank of Moore, Moore, Okla.:

1. Acreage, we believe, is about the same.
3. I think so.
4. Haven't much surplus.

##### Increase of 15 Per Cent.

George R. Sutton, cashier First National Bank, Prague, Okla.:

1. Acreage 15 per cent. increase.
2. We think not.
4. Much improved; surplus invested in more land, better equipments and improvements.

##### Farmers Fair Financially.

G. M. Ellis, cashier Bank of Red Rock, Red Rock, Okla.:

1. Acreage will be 100 per cent. more.
2. Yes.
4. Fair, financially.

##### On the Northern End of Cotton.

C. W. Fonda, president Farmers and Merchants' Bank, Selling, Okla.:

This locality being on the northern edge of cotton-growing, and last year being the first season our farmers have planted cotton, I can only say that this year the acreage will be much larger than last year, consisting of but few acres to each farmer, as it is experimental with them, being all Kansas or more northern people. Farming is largely diversified here, and last



year was the best for crops we have had. Being a new country, our farmers have not yet acquired much surplus money; what they have is mostly invested in more stock or improvement of their farms.

#### The Oat Crop to Determine.

J. B. Hines, cashier First Bank of Roosevelt, Roosevelt, Okla.:

1. Little early to say, owing to how the oat crop shows up.
2. Can't say that it will.
3. Small grain.
4. Fair; better improvements, live-stock and more land.

#### One-Quarter Less Acreage.

First National Bank, Walters, Okla.:

1. One-quarter less.
2. Yes.
4. More land.

#### Corn, Alfalfa, Potatoes.

H. T. Douglas, president Shawnee National Bank, Shawnee, Okla.:

We do not believe there is any increased acreage in this locality in cotton. We are in a diversified section, and the farming community take quite as readily to corn, alfalfa and potatoes as they do to cotton. The three crops named, with oats, would be named as those to which the farmer is drifting in reducing the cotton acreage. The financial condition of the farmers in this section is improving very rapidly, and they are investing their surplus in improvement of their farms. Pottawatomie county, embracing 1000 square miles, is a section which offers the very best inducements for diversified farming, its lands being equally favorable for crops named above as for cotton. Alfalfa is proving more favorable than cotton as a crop, and we always have a splendid market for corn here, as well as small grains, which places our farmers in a very independent condition as regards the price of cotton, and yet our county is the largest cotton-producing county in Oklahoma. But on account of the extreme scarcity of labor and inclination of the farmer to raise a crop like alfalfa or potatoes, which requires less labor and is quicker disposed of, we anticipate no increase in the acreage of cotton in this section either this year or in the future.

#### Small Grain, Corn and Hogs.

A. North, cashier First State Bank, Davidson, Okla.:

1. Acreage is about the same.
2. Yes.
3. Small grain, corn and hogs.
4. Good; investing in lands.

#### Investing in Live-Stock.

Farmers and Merchants' Bank, Sterling, Okla.:

1. Acreage about the same.
2. Yes.
3. More stock-raising and feed.
4. Good; in stock.

#### Little Interest in Co-operation.

Washita Valley Bank, Fort Cobb, Okla.:

1. Acreage is about the same.
2. Very little interest taken here.
4. This is new country, and there is no surplus; small amount going into farm lands.

#### Enlarging Dairy Output.

M. G. McKee, cashier Bank of Meeker, Meeker, Okla.:

1. Acreage about the same.
2. I think so.
3. By enlarging their dairy output and raising more corn and hogs.

#### No Advance in Diversification.

Exchange Bank, Tecumseh, Okla.:

1. Acreage about the same.
2. We think not.
3. No progress.
4. No surplus to invest.

#### Probably Greater Co-operation.

Custer County State Bank, Custer, Okla.:

1. Acreage about 90 per cent. of last year's crop.
2. Probably greater.
3. Increasing.
4. Better than for several years.

#### Banks to Make Special Effort.

S. W. Hill, cashier Bank of Woolsey, Lucien, Okla.:

The acreage of cotton in this portion of Oklahoma will be fully doubled this year, owing to the partial failure of the cereal crops last year and the excellent yield and quality and the prospective fair price of cotton. It will be the special effort of the banks here to co-operate with the growers in enabling them to hold their cotton for the best price. The general financial condition of the farmers in this immediate locality is good. The majority of them can hold their cotton within their own means, owing to the general diversity of crops and the prospective good yield of the cereals.

#### Farmers' Union for Diversification.

C. D. Rorer, cashier Bank of Commerce, Shawnee, Okla.:

It is a little early to know exactly or to be able to form any very accurate estimate of the amount of cotton to be planted this year in this section. However, the acreage of potatoes and corn at this time might be used as a basis for an estimate. The potato acreage is somewhat lighter than last year; in fact, considerably lighter, on account of low prices last year and the amount of old stock on hand. As this section is one of the largest potato-producing sections in the middle central West, a decrease of one-third means considerable of an acreage. About the same amount of corn is being planted as last year. The Farmers' Union has taken a strong hold on farming affairs in this county, and is doing good work for diversification and meeting with success. We have a farmers' clearing-house established here and the farmers are holding together well, but on a whole local conditions will have a tendency to increase rather than decrease the acreage.

#### Raising Grain.

J. E. Ernst, cashier Citizens' Bank, Headrick, Okla.:

1. Acreage will be about the same.
2. No.
3. Raising grain.
4. Good; in land.

#### SOUTH CAROLINA.

##### Some Effort to Raise Home Supplies.

F. E. Harrison, president Farmers' Bank of Abbeville, Abbeville, S. C.:

There has been no appreciable diminution in the acreage in cotton this year as compared with the past. I think there will be as much, if not more, land in cotton this year. Our farmers have not yet turned their attention to crop diversification, as some of us think they should. There is an effort on the part of some to raise supplies at home, but the great majority buy what they need from the proceeds of the cotton crop. There is perfect harmony between the cotton-growers and the banks in this county. I think that crop diversification need not be considered as a regulator of the cotton-acreage proposition in this county. The financial condition of the farmers hereabouts is very good indeed—better, in fact, than ever before. They are, as a rule, investing their surplus in land and improvements thereon.

##### More Guano Upon Same Area.

F. B. Henderson, president People's Bank, Aiken, S. C.:

1. Acreage the same. There will be more guano used this year than last.
3. None.

4. Financial condition good; in paying off mortgages, buying lands, better stock and improving their houses.

#### Smokehouse, Cornerib, Cotton Mill.

Jos. J. Fretwell, president People's Bank of Anderson, Anderson, S. C.:

My opinion is that the acreage in this section will be about the same as last year, provided the conditions of the season will justify, for as yet there has been no planting of cotton in this section, but the grounds are being put in condition for that purpose. Recent rains have retarded the preparation of the lands to a certain extent, while a fairly good season of clear weather will overcome whatever may have been lost in that respect. I believe the assistance rendered to the farmers by the banks last year was fully appreciated, and will result in great good to all. The farmer sees that he holds the balance of power in regard to the prices of cotton, and realizes that he has both a friend and an ally in his banker or factor, or both, as the case may be. Diversification of crops will follow naturally, and gradually the smokehouse and cornerib will be moving nearer the cotton farm, where the cotton mill is already being established. The more progressive farmer in our section has made up his mind that he can double his yield of cotton, corn and oats by planting fewer acres and increasing the amount of fertilizers to a given acreage; in other words, he will not increase his acreage in cotton, but will use a larger amount of fertilizers and cultivate the crop more thoroughly with the same number of laborers, thus realizing a better yield with less expense, and the same results will follow in the grain crop under like treatment. The financial condition of the farmers of this section was never better than today. They are becoming rapidly self-sustaining, and the old credit system and buying supplies on time are fast passing away, and instead the banks are supplying the necessary funds, which enables the farmer to purchase his supplies at cash prices, thereby saving the difference that at one time went to the merchant or factor. The savings are now invested in cotton-mill and bank stock, in cottonseed-mill stock and in real estate, as well as in improvements in farm appliances and betterments around the home and farm. A few more years of prosperity such as we have passed through recently will place the farmer well on top, and the old song of "hard times" will be entirely forgotten.

#### More Machinery and Implements.

The Bamberg Banking Co., Bamberg, S. C.:

1. About the same.
2. We think so.
3. About as last year.
4. Financial conditions better; investing in lands and in improved farming implements and machinery.

#### Liberality of the Banks.

C. P. Mangum, cashier Bank of Chesterfield, Chesterfield, S. C.:

1. At present would say the acreage will be about the same as last year.
2. Think so. The banks are very liberal in this section in co-operating with the farmers.
4. The financial condition is better than for many years. Some are investing their surplus in real estate.

#### No Change Contemplated.

W. C. Smith, president Easley Bank, Easley, S. C.:

In my opinion, the acreage in cotton in our vicinity this year will be about the same as that of last year if weather conditions are favorable through the planting season. If weather conditions are unfavorable, the acreage will be less. There is a growing tendency to diversification, and the mutual benefit derived from the co-

operation of the banks and the growers will lead to increased support from the growers and greater encouragement by the banks. Diversification in farming is tending to the reduction of the cotton acreage, and many of our most successful farmers are making their cotton crop their surplus crop. Our farmers are generally in good financial condition, and are buying better stock and better farm equipments, and are investing in real estate and industrial enterprises.

#### Reduction from Last Year.

The Farmers' Bank, Edgefield, S. C.:

From what I can gather from the farmers themselves in this section, I do not believe that there will be as much cotton planted as was planted last year by about 5 per cent. I will further say that from what I can gather more food crops will be planted and equally as much commercial fertilizer will be used by the farmers. More of this fertilizer will be used under food crops than heretofore. This seems to be the plan of our farmers, and is brought about, first, by the fact that the yield of food crops in this section last year was shorter than usual. This always brings about an interest and an increase in the acreage planted in food crops in a succeeding year. Then, too, the Southern Cotton-Growers' Association has inaugurated a campaign for this year to induce the Southern farmer to pay more attention to the planting and production of the food crops. I think the banks have stood by the farmers again this year in their efforts to better their condition, though they have not been called on to make advances to the farmers for the purpose of holding cotton, as was the case last year. My observation in this regard has been this year that comparatively little cotton has been held in the country. The high price prevailing has drawn out from the country most of the cotton. What cotton has been held is in the hands of commission merchants principally. As to the investment of the farmers' surplus, most of this has gone to pay off already existing mortgages and in some instances to the purchase of real estate which has been heretofore rented by parties who have bought. The increase in the value of real estate and in the cost of labor and live-stock has absorbed a great part of the surplus realized by the farmer from the higher price of cotton. The next crop of cotton, for these reasons, will cost the Southern farmer much more than any crop he has ever grown, unless it should happen that the crop is cultivated under very favorable seasons.

#### About the Same Acreage.

C. M. Smith, president Merchants and Planters' Bank, Gaffney, S. C.:

We think the acreage that will be planted in cotton this year in this county will be about the same as last year. The farmers were never in better financial condition than at present, and the banks take pleasure in helping their farmer friends in every way possible.

#### Labor Never Known to Be as Scarce.

Jas. C. Self, cashier Bank of Greenwood, Greenwood, S. C.:

The outlook now is that the cotton acreage in this section will be about the same as last year. The labor situation is such that I do not believe the acreage can be increased materially. In the regular course of the growth and development of our section along diversified lines much of the support from the farms has sought employment in the mills and factories, and I have never known labor to be as scarce. The farmers in this community are at least 10 days behind with their work, and planting will necessarily be some later than usual. So far as my knowledge goes, and it is based on the preparations now being made, there will be more attention

given to the diversification in farming than in many years. The agricultural interests in this section have shared more perceptibly than all others in the general prosperity which is so much in evidence throughout our land, and as a result of this farm lands have increased in value almost on an average of 50 per cent. throughout this county, the farmers are building better homes, owning better teams, and last, but not least, they are keeping larger balances in bank. The bank deposits for Greenwood county are very much greater than they were at the same time a year ago, and with the Bank of Greenwood the gain in deposits has been \$125,000, or an increase of about 50 per cent. over that of last year.

#### Shown by Deposits in Banks.

Lewis W. Parker, president Bank of Greens, Greens, S. C.:

I see no indications that the acreage in cotton will be increased to any appreciable extent this year as compared with last year; on the contrary, I think the scarcity of labor will make our planters careful about increasing the acreage, but every effort will be to secure the best results from the acreage planted. I think that the diversification of crops and the co-operation of the banks and growers will be duplicated this year, and that the growers will receive even greater encouragement from the banks. At present the diversification in farming seems to be directed towards an increase in grain and corn planted. Apparently very little effort is being made to put any portion of the land in grasses for the encouragement of stock-raising, which I regard advisable. The financial condition of the farmers in this community is better than I have ever known it to be. The deposits of country banks show this to be the fact. The tendency of the farmer in the investment of his surplus money seems to be by purchase of additional lands, the result being that lands have increased greatly in value during the past few years.

#### No Indication of a Natural Regulator

President Bank of Hartsville, Hartsville, S. C.:

1. It is thought there will be a light increase in acreage.
2. Think it will be about the same as last year.
3. We see no indication of a natural regulator. Think, with the average farmer, the only regulator will be the price at planting time.
4. Financial condition good; some in real estate, some lend to one another.

#### Slight Acreage Increase.

J. S. Bethea, president Bank of Latta, Latta, S. C.:

1. Some increase in acreage, perhaps 5 per cent.
2. I think so.
3. In lands.

#### Behind on Account of Wet Weather.

E. W. Yates, cashier Bank of Lake City, Lake City, S. C.:

In reply to your letter would say that we think that cotton acreage has been increased about 15 per cent. We think the same conditions will exist between the growers and banks that did last year. Farmers are very much behind this year, on account of the wet weather. The financial condition of the farmers in this vicinity is good, and they are improving their homes and farms with what surplus they have.

#### Diversification Not Advancing.

O. B. Simmons, president Bank of Laurens, Laurens, S. C.:

I am hardly capable of answering your questions. As to acreage, would say it will be about as last year. Diversification does not seem to be making much progress. The financial condition of the farmers has

improved very much in the last few years. They are investing their surplus and more, too, in lands, mules, etc.

#### Still Holding 10,000 Bales.

H. C. Wannamaker, cashier People's Bank, Orangeburg, S. C.:

In my opinion, the acreage of cotton in this county will be practically the same as last year. From all the information I can obtain, I do not think the acreage will vary 1 per cent. either way. The large farmers will continue to diversify and intensify; this more on account of the scarcity of labor than anything else. The small farmers and negroes, I think, will do about what they have been doing for the last 10 years. The banks are giving the farmers all the assistance that they can, and right now are straining a point to help them hold about 10,000 bales of cotton, which are still in the hands of the farmers, for a better price. Acreage not planted in cotton is being used for corn, oats, peas and hay. The general financial condition of the farmers in this county is good, and they are investing whatever surplus they have mainly in country lands, although some of them are investing in town property and moving their families in town in order to get their children to school, and are either renting or share-cropping their lands.

#### Will Attempt to Grow All Needed Corn.

Ward Albertson, cashier Bank of Rock Hill, Rock Hill, S. C.:

Seasons being favorable, we believe the acreage will be about the same as last year, with probably a tendency towards an increase, though labor is scarce, and we do not think it practical for our farmers to plant a larger crop than last year. With regard to diversification will say we believe the tendency is towards diversifying the crops more each year, and the farmers will at least attempt to grow all the corn they may need. The financial conditions of the farmers in this vicinity are excellent, and they are investing their surplus principally in farm lands.

#### Generally Improving Plantations.

Messrs. O'Donnell & Co., Sumter, S. C.:

1. No material change in acreage.
2. Varied.
3. Financial condition good; investing surplus in lands and general plantation improvement.

#### A Healthy Improvement in All Lines.

Richard I. Manning, president Bank of Sumter, Sumter, S. C.:

The acreage in cotton in this vicinity will, from all the information we can gather, be about the same as last year. If there is any increase at all, it will be very small. The campaign of last year will lead, in my judgment, to an increased diversification, and especially to greater care in preparation of lands for corn and forage crops, accompanied with marked increase of fertilization of these crops, increased attention to stock and cattle raising, as shown by the increased sales of wire fencing for pasturage purposes. There has been a gratifying increase in the amount of home-raised forage that is being offered for sale, showing that more of our farmers are raising these supplies for home consumption, and that many of them have a surplus above their own needs. The banks have been and are doing all in their power to encourage and support the campaign of education in diversification and raising supplies for home consumption. They are aiding the farmers in holding cotton, so as to avoid large offerings on declines in the market. They are encouraging them to market their cotton gradually in small lots on good advances in price to enable them to pay pressing debts, but to avoid the pressure of large offerings of cotton at any one time or on

weak and depressed markets. Diversification is shown in increased acreage of corn and forage crops, better preparations of soil therefor, and much better fertilization thereof, and also in stock and cattle raising and trucking. There is a marked general improvement in the financial condition of our farmers. This is shown in the reduction of their mortgage indebtedness, and also in their investing their surplus in lands, creating a general demand for land and a marked increase in the value of all agricultural lands. There is also a marked disposition among them to improve their methods in farming, in better preparation and in the use of improved implements—altogether a healthy improvement in all lines.

#### Encouragement Given Farmers.

W. A. Strother, president People's Bank, Walhalla, S. C.:

1. Acreage slightly increased.
2. Farmers in good condition, and are getting all the encouragement needed.
3. Corn and stock.
4. Investing in lands.

#### Everyone Hopeful of the Future.

Wm. P. Anderson, president Peden & Anderson Banking Co., Westminster, S. C.:

It is rather early to say just what the acreage will be in this section; that it will vary very little from last year is the general opinion. The farmers and banks are acting in hearty co-operation. The financial condition of the farmers is the best it has ever been, and everyone is hopeful of the future.

#### Operatives Have Moved to the Farms

J. R. Westmoreland, cashier Bank of Woodruff, Woodruff, S. C.:

The acreage in this section of the cotton belt will not be reduced, and from the extensive amount of fertilizer that is being bought by the farmers, we are inclined to think that the acreage will be increased. We note also that quite a number of the cotton-mill operatives have moved to the farms, and for the sole reason of the high price of cotton. We hear very little from the farmers about the diversification in farming, and therefore think that this feature of the condition will amount to very little. The general financial condition of the farmers is very good, and all of the surplus money is being invested in real estate.

#### Raising Foodstuffs.

F. M. Farr, president Merchants and Planters' National Bank, Union, S. C.:

1. About the same; small reduction.
2. Yes.
3. Food-raising.
4. Fair; investing in lands.

#### Farmers Standing Out for Fair Prices

B. W. Crouch, president Bank of Saluda, Saluda, S. C.:

It now appears that there will be a slight increase in the cotton acreage in Saluda county over 1905. This can be accounted for on two grounds: First, this county, which is largely undeveloped, is being opened up, and second, the planters of last year, or some of them, will add some to the acreage. These two causes will probably result in an increased acreage over last year of, say, 10 per cent. The banks stand ready in this community to extend a helping hand to the farmers in their fight for fair prices, and the farmers in this county are determined to stand out for what they consider a just and reasonable return for their labor. There is a better understanding between the banks and the farmers than ever before, for the banks are the farmers' friends, and this the farmers now fully realize. The confidence is mutual. The farmers in Saluda county are in better shape financially than has ever been known. This is shown most convincingly by the amount of depos-

its carried for them in the various banks, and also by the fact that they are eagerly buying real estate at greatly-advanced prices and paying for it in most instances in cash. The surplus cash is being turned into real estate for the most part; in fact, there are few investments being made just now in this county outside the purchase of land. When farmers buy land it is a sure sign of prosperity among them. More wheat and oats are being grown than in former years, and some of the best lands heretofore planted in cotton are being utilized for small grain. Many planters who, when cotton was down to five and six cents, could not make ends meet, let their homes and outhouses go down. No repairs were made by them, because they did not have the money. Now not only are these repairs being made, but it is not an uncommon sight to see the old houses torn down and new and better ones erected in their stead. Some one has said, and truly, that when you see farmers building and making repairs on the farms you can easily guess that money matters with them are "easy." Judged by this standard, Saluda county is all right.

#### Farmer and Banker Closer Together.

James P. Gossett, president Bank of Williamston, Williamston, S. C.:

The question of acreage to be planted this year in cotton will depend more upon weather conditions than upon all other factors combined. It will be a "weather acreage" and a "weather crop." An early dry spring will spell increased acreage, while a late wet spring will spell reduced acreage. It is therefore too soon to do more than make a forecast. The success of united effort last year was so marked that it has brought the farmer and the banker closer together than ever before. They have learned that their interests are in common; that the success of the one means the success of the other. As the farmer progresses and prospers, as he surely is doing, the banker stands ready to lend him financial aid in all his undertakings, in the growing of his crop or in the storing of it, in the buying of lands or in the improvement of them. Their relations are all that can be desired. There will be no more "congested conditions" to solve, no more "distressed cotton" to provide for. They can take care of all the cotton that can be made, small acreage or large, for they have the money and the brains to do it with. The world must realize that this is indeed a new South; that the man behind the plow and his banker are powers to be reckoned with.

#### Raising More Live-Stock.

Bank of Prosperity, Prosperity, S. C.:

1. About the same acreage—no more.
2. Think so.
3. Planting more corn and raising more live-stock.
4. Good; in form of lands. Land has advanced 50 per cent.

#### Greater Encouragement from Banks.

L. C. Lazenby, secretary Lancaster Mercantile Co., Lancaster, S. C.:

As to acreage, it is rather hard to tell at this stage just what it will be. Certainly it will be no larger than last year. Our impression is that it will be slightly decreased on account of scarcity of labor and the lateness of the season. We think the campaign in diversification and in co-operation of the banks and growers will be duplicated this year, with greatly increased support from the growers and greater encouragement by the banks. We think the farmers are learning more and more each year that the proper thing for them to do is to raise their supplies at home and thus put themselves in a more independent position. We think the general financial condition of the farmers is better than it has been for some time.



They are using their surplus in paying cash for their supplies for this year and investing in real estate.

### TENNESSEE.

#### Labor Becoming More Inferior Every Year.

S. F. Thomas, cashier Brownsville Bank, Brownsville, Tenn.:

The acreage of cotton in this community will be about as last year; in fact, there has been no reduction in acreage except where it was brought about by scarcity of labor or abandonment on account of wet weather. Labor is scarce and more inferior every year, and this will do more to affect the acreage than any agreement on the part of farmers. There is more diversification going on than many years back, and the merchants and bankers are co-operating with the farmers in every way possible and encouraging greater diversification. Farmers are living more at home and less from the stores, raising more hay and good stock, consequently greatly improving their farms. The farmers are in good financial condition, the bank deposits having increased nearly 100 per cent. during the last few years. Lands are bringing much higher prices and finding ready sale.

#### Turning to Horses and Mules.

R. B. McDaniel, cashier Farmers and Merchants' Bank, Dyer, Tenn.:

From the best information I can gather, the acreage of cotton in this locality will be about the same as it was last year; acreage in wheat is some less, which is being prepared for corn and hay. Farmers are turning their attention now more to the raising of horses and mules than for many years past. The general financial condition of the farmers in our locality is better now than for several years past, but as a rule they have not much surplus money, not more than they need in improving their farms.

#### More Grass and Grain.

W. T. Nunn, cashier Bank of Halls, Halls, Tenn.:

1. It is my opinion that the acreage of cotton this year will be reduced 10 per cent.

2. Yes.

3. People, I think, will plant more grass and grain, diversifying their crops in that way.

4. The farmers' general financial condition is good.

#### The Place for Early Vegetables.

J. K. Gibson, cashier Stanton Bank, Stanton, Tenn.:

The acreage in cotton will be about same as 1905. Do not think there will be any greater "diversification" this year than last. It takes the form of early vegetables and fruits. In this immediate section the cotton crop, which is our chief money crop, was a light one; hence the financial condition of the farmers is not as good as at this time last year. The investments that are being made are in land, which is lower in price here than in almost any section, yielding same profit on investment. We think our country particularly adapted to growing vegetables for early shipment North; peas, beans and potatoes especially. We need some good thrifty workers to come and buy land and further develop our immediate section as an early vegetable shipping point.

#### Bank Deposits Break Record.

J. W. Vanden, cashier First National Bank, Jackson, Tenn.:

I have deferred writing until I could acquire accurate information for a friend of mine who recently canvassed West Tennessee. Acreage of cotton in my vicinity is estimated as the same as last year. Diversification of crops is about as usual. The banks extend all the accommodation

to farmers required. The general financial condition of the farmers is good. A considerable majority of the farmers have money in bank and sufficient supplies to carry them over crop year. Conditions in Jackson, Tenn., and Madison county were never better. Bank deposits are the largest in the history of the county. Good opening here for progressive truck farmers and energetic mechanics.

#### Farmers in Better Condition Than for Years.

J. R. Harrison, cashier People's Bank of Milan, Milan, Tenn.:

1. Acreage is about the same as last year.

2. Yes.

4. Better condition than for many years. Many are improving farms.

#### Some Talk of Warehouses.

Neill Wright, cashier Bank of Huntingdon, Huntingdon, Tenn.:

Acreage in cotton in this section will be 20 per cent. greater than last year, provided excessive rains do not prevent planting in lowlands. There has never been any systematic co-operation between growers and other organized interests in this locality. There has been some talk of farmers' warehouses in certain sections, but nothing definite has ever been accomplished. Not much diversification apparent. More attention will perhaps be given to the breeding of mules and horses by reason of high prices that have been ruling, but our principal money crop is cotton, and our planters will go to their usual limits in planting. Condition of farmers is better than ever before. Surplus funds are being invested in improvements, live-stock and land.

#### To Repeat Last Year's Policy.

Q. Shumate, cashier Newbern Bank, Newbern, Tenn.:

1. Yes.

2. It will.

3. Very encouraging.

4. They are in good shape; investing in more lands and better live-stock.

#### Land Enhanced in Value.

A. S. Elder, president Gibson County Bank, Trenton, Tenn.:

I think perhaps some more cotton will be planted in this section this year than was planted last year. I think more vegetables will be cultivated this year than were last, especially tomatoes. The general financial condition of the farmers is good. They are investing their surplus considerably in land, which has enhanced quite a good deal in value.

#### Fruits and Early Vegetables.

J. E. Carthel, president Exchange Bank, Trenton, Tenn.:

1. Acreage 10 per cent. increase.

3. Fruits and early vegetables.

4. Financial conditions good; buying lands.

#### Grain and Truck.

Bank of Bolivar, Bolivar, Tenn.:

1. Acreage the same.

2. Yes.

3. Grain, truck-growing, etc.

4. Good; in land.

#### Cotton's Supremacy Lost.

R. N. James, cashier Bank of Gibson, Gibson, Tenn.:

We wish to say that as yet the conditions are not far enough advanced to make anything like a close estimate of the cotton acreage in this vicinity. Judging from reports, the acreage will not exceed that of last year, although the present price of cotton would seem to justify an increase. The fact that diversified farming has taken a thorough hold upon our people will account for this. Diversification has come, and come to stay. Cotton can never have the supremacy it once had. Farmers have come to the realization that their prosperity lies not in one product,

but in many. Our farmers generally have used what surplus they may have had, principally for farm improvements and preparing for the coming crops.

### TEXAS.

#### Will Plant a Great Deal of Feedstuff.

W. G. Webb, cashier Albany National Bank, Albany, Texas:

It is a little too early to answer your first question, as no cotton has been planted in this section yet, but from what we can hear from the farmers, we do not think there will be any more cotton planted this year than last on the same amount of land in cultivation. But there is much new land in cultivation in this section, and, of course, much of this will go into cotton; so we think that there will be about 10 per cent. more cotton planted in this section this year than last. The same campaign is now on as last year to try and avert the overproduction of cotton, and we think it has had good results. Our farmers will plant a great deal of feedstuff, and there has already been much small grain planted, consisting mostly of oats. The financial condition of our farmers has never been better. A number that rented land last year have bought land, and most of their surplus money has gone into their homes.

#### Depending Upon Corn.

B. M. Sansom, vice-president First National Bank, Alvarado, Texas:

It is a little early to make an estimate on cotton on account of the corn crop. That has been planted for some time. It is not yet up, on account of wet and cold weather. Should we get a good stand of corn I do not think our cotton crop would be much larger than last, or rather the acreage of cotton. I look for a small acreage increase, probably 10 per cent. over last year's. Our farmers are not diversifying as much as in some parts of the county. I suppose on account of our land not being adapted to small grain, we rely mainly on corn and cotton. Our farmers are prosperous, and are saving money. A majority of them buy land, while others will buy land notes with their surplus. Our last cotton crop was at least 35 per cent. short, but has brought a good price, and our people are well pleased with the result of the year's earnings. Hope this meager information may help you to make up your mind.

#### Held Back by Labor Scarcity.

Ira C. Bryant, cashier First National Bank, Annona, Texas:

In regard to the acreage to be planted in cotton as compared to last year, will say that, in my opinion, the acreage will be reduced from several reasons, the chief one being the scarcity of labor. The extreme wet weather of last year caused a great many laborers to leave here, and we have been unable to fill their places. In regard to diversification, our farmers are not practicing it to any extent. However, truck and fruit growing are steadily growing in favor. We hope to soon see conditions such that we shall not have to depend entirely on cotton as a money crop. As to the financial conditions of the farmers, beg to say that it is worse than we have ever had in this country. We made less than 25 per cent. of our usual crop last year, both corn and cotton, and this puts the farmer in hard shape for this year. However, work is very well advanced for this time of year, and we hope to make up for our failure of last year.

#### Being Educated Up to Diversification.

H. A. Wroe, second vice-president American National Bank, Austin, Texas:

In our opinion, the acreage in cotton will be as large as that of last year, but the farmers are being gradually educated up to diversification, and they are gradu-

ally getting more support from the banks than heretofore, which puts them in a better position to handle their crops to an advantage, and there is a movement on foot now to establish cotton warehouses in the South, which will enable the farmer to hold his cotton for better prices and not be at the mercy of a low market, and in this direction they are very much encouraged. The farmer in the South today is much improved over the farmer of 20 years ago, and they are devoting more attention to diversifying and raising grain, fruit and vegetables and some stock, and they are not solely dependent upon cotton. The general financial condition of the farmer in this vicinity is much improved over that of a few years ago, and his business mostly is direct with the banks, and not with the merchant, which enables him to borrow money on his crop and chattels and pay cash for the necessities of life. The country generally in this section is in fine condition and progressive. The banks have more money than they can loan, and some of them have had to seek outside investments, which is a good indication of the financial condition of the country. In Austin we have five banks, which have a deposit of about \$4,500,000, our population being only about 26,000.

#### Comparatively Few Good Planters Are Borrowers.

E. P. Wilmoth, president Austin National Bank, Austin, Texas:

In my opinion, the acreage in Travis county will be just about what it was last year. There is a strong tendency to diversification, and has been for the past two years. However, last year the price was high and the farmers netted a large profit on their cotton. I do not believe that there will be less cotton planted this year than last. The financial condition of the farmers in this section is better than I have ever known it. Comparatively few of the good planters are borrowers, but, on the other hand, most of them have good deposits and sufficient to run them through to make another crop.

#### Texas Becoming Independent.

Jo Wilmoth, cashier Citizens' National Bank, Ballinger, Texas:

On account of climatic conditions, cotton is our only money crop, and while we raise sufficient feed for home supply, we have none for market. Being a new country, our acreage will increase from 25 to 50 per cent. As before stated, diversification is an unknown quantity with us; we must stay with cotton. Farmers are in very fair financial condition, and are investing all their surplus funds in land. Texas as a whole is still growing in her diversification ideas, and is fast getting away from the one-crop theory; hence are becoming more independent.

#### Alfalfa and Truck Farming.

J. C. Coit, cashier Exchange National Bank, Denton, Texas:

Cotton acreage will be increased probably 10 to 25 per cent; diversification progressing slowly. Our people are gradually diversifying in the direction of truck farming and alfalfa. General financial condition of farmers is probably 25 per cent. under average, due to wheat failure and 50 per cent. cotton crop past year.

#### Dividing Farms Among Crops.

J. W. Spencer, president Farmers and Mechanics' National Bank, Fort Worth, Texas:

Because of the wet fall and continued wet weather in the spring, there will probably be a larger cotton acreage in this vicinity the coming year. The campaign inaugurated and maintained by the local press advising diversification is not without beneficial results. Diversification seems to have gotten hold of a great many farmers, and it is the rule now for each

farmer to have his farm divided up into several crops. The bankers are eager at all times to give the support necessary or desired by the farmers in the conduct of their business. There is no lack of capital on this score. The diversification idea is finding its greatest achievement in the raising of additional corn, thus insuring the growth of more hogs with which to supply the great packing-houses at Fort Worth. All over the State the cry is raised, "more hogs," and good results are becoming more apparent every day. Farmers, as a rule, are in splendid financial condition, and are not only able, but have the past two years gotten into the habit of holding their cotton for better prices and marketing it slowly. Their surplus is invested in farm lands and good stock.

#### Increase May Be Large.

H. C. Edrington, president Texas National Bank, Fort Worth, Texas:

There will be an increase of cotton acreage over the last season in this section. It is yet too early in the planting season to approximate the amount of the increase. I believe it will be large. The purpose to decrease acreage in cotton and diversify crops is not near so strong and general as it was last year. There does not appear to be any systematic diversification as a regulator of cotton acreage. There is much said in the State press upon the importance of limiting cotton production, but planters consider the season the natural regulator. Farmers are generally in easy financial circumstances.

#### Successful Campaign to Be Duplicated.

I. H. Kempner, president Texas Bank & Trust Co., Galveston, Texas:

The acreage in the State of Texas will probably show an increase of  $7\frac{1}{2}$  to 10 per cent. over last year. The success of the year's campaign in diversification and in the co-operation of the banks and the growers will certainly be duplicated this year with increased support from the growers and greater encouragement by the banks. The result of the year has brought a most convincing proof of what can be attained by diversification, and while it is a campaign of education which must still be prosecuted, its object-lesson is becoming more patent every day. Diversification in farming as a natural regulator of the cotton campaign is progressing in the direction of proving the wisdom of the old adage of not putting "too many eggs in one basket." It is showing the farmer that by raising other crops, particularly those needed for home consumption, he is placing himself in a position where he is not compelled to sacrifice his one crop (cotton) regardless of values prevailing when his needs arise. From the initial point of raising home supplies only a gradual evolution is taking place, whereby the farmer is seeing the advantage of raising small crops of vegetables for local sale or shipment, raising a few head of hogs and cattle and thereby selling "on the hoof" his corn, sorghum, alfalfa and other feed crops for which he has ascertained that a cash market is always just as valuable as for cotton. The general financial condition of the farmers in our vicinity is good. He has, however, not had much opportunity for investing his surplus other than in the discharge of debts that accumulated during several years of disaster, brought about largely by the boll-weevil and by relying too much on one crop, but what surplus they may have is, as a rule, being invested in lands or in buying cattle and hogs to place them in a more independent position with reference to marketing their cotton and corn crops.

#### Cotton Has Scarcely Had a Trial.

G. A. F. Parker, president Western National Bank, Hereford, Texas:

Very little cotton is produced here. In

a radius of 25 miles there were raised about 50 bales this year. We think 100 bales will be the limit for the coming year. This is a new country, and cotton has scarcely had a trial so far.

#### Trying to Beat the Boll-Weevil.

J. E. Norvell, president Farmers and Merchants' National Bank, Henderson, Texas:

1. The acreage will be about same. Our acreage was reduced last year largely on account of excessive rains and bad season. The weather is good for starting this crop, yet there will be no increase. I rather think there will be some reduction, mainly from the fact that we can't expect to make a full crop on account of boll-weevil, and must cultivate early and thoroughly to make an average half or two-thirds crop.

2. Yes, and more so.

3. More feedstuff of all kinds principally.

4. Somewhat hard-pressed, on account last season's short crop; no surplus.

#### Will Be Greater Co-operation.

J. E. McAshan, cashier South Texas National Bank, Houston, Texas:

The cotton acreage will be increased. There will likely be greater co-operation between producers, merchants and bankers. The direction in which diversification is extending is in the increased production of food and feedstuffs. The general condition of the farmers financially is reported good. Their surplus is largely going into more land, better improvements and equipments.

#### Selling Out to Buy Cheaper Homes.

W. H. Coffman, president Itasca National Bank, Itasca, Texas:

The cotton acreage will be materially increased. I do not hear anything of any concerted action on the subject, as was the case last year, regarding diversification. The tendency this season will be to greatly reduce grain, which has never proven a big success here. Our financial conditions are better than they were this time last year. Farmers are investing surplus funds in Western Texas lands just at present. A great many are selling out here and buying cheaper homes further West. This, of course, keeps our country pretty well drained of idle money that one might expect to find in so rich a country as this.

#### Acting Against Their Own Interests.

J. C. Reynolds, president First National Bank, Moody, Texas:

Cotton acreage will be increased about 10 per cent. above last season. It is my opinion that the farmers, bankers and merchants will continue to operate together for the purpose of preventing an overproduction of cotton. Our farmers are planting less wheat and more corn, and are feeding more hogs than usual, but the fancy price paid for cotton is causing many farmers to increase their acreage, against the advice of their friends and against their own interests. The general financial condition of our farmers is the best ever known. They are investing their surplus funds in West Texas lands.

#### No Longer Talking Diversification.

H. C. Bluhm, cashier Farmers and Merchants' Bank, Muenster, Texas:

Cotton acreage will be increased this year over last year 30 per cent. in the vicinity of Muenster, and an increase of 20 per cent. throughout the county. Diversification talk is a thing of the past among the farmers, and they appear to be getting into preparation to launch forth a great big acreage, believing that cotton will bring them from 9 to 11 cents throughout the coming season. Farmers, with a few exceptions, sold their cotton as it was gathered and ginned the past season and used the proceeds in reducing land mort-

gages and buying more land. Many hundreds of acres of sod land will be put into cultivation this year, which will also help to swell the acreage. Diversification talk, low-priced cotton and farmers' organizations will not keep down the acreage this year.

#### Adding to Land Holdings.

Charles E. Tips, president First National Bank, Seguin, Texas:

The cotton acreage in this vicinity this year will be slightly in excess of last year, owing to an increase in new land put in cultivation and the good crop and excellent prices paid for cotton the past season. The diversification idea has taken a hold among our farmers, and is being used with good results, but as yet not as extensive as it should be. The cotton acreage largely predominates, followed by corn; then melons, truck and fruit on a small scale. Our farmers are in excellent financial condition, and are investing their surplus in lands here and elsewhere, wherever good farming lands can be bought.

#### Have to Borrow Money.

Thomas F. Shelton, president City National Bank, Texarkana, Texas:

Our planters in this section of the country are going to increase their acreage in cotton a very small per cent. this season. However, they are diversifying very largely also. The farmers in this section of the country have no surplus money. They made almost a complete failure in crops last year. Hence most of them are having to borrow money to make this crop on. However, prospects for a good crop are very promising.

#### Warning in a Year's Campaign.

J. C. Smyth, president First National Bank, Venus, Texas:

I think the acreage in cotton will be fully as much as last year, perhaps 10 per cent. more. I think the year's campaign in diversification and the help of the banks will cause the farmer to take warning. Diversification will be made in the direction of corn and small grain. The farmers' financial condition is better than it was this time last year, and their investments are in the direction of more black land.

#### Diversification Vigorously Prosecuted.

E. Rotan, president First National Bank, Waco, Texas:

Cotton acreage in our trade territory will be slightly larger this year, incident chiefly to the taking in of new lands. The diversification idea has taken firm root in this section, and will be vigorously prosecuted, with hearty co-operation of banks and growers. Diversification will take the direction of larger grain acreage, fruit farms and truck productions. Alfalfa and other grasses are coming into favor as money-producing crops. Farmers are in better financial condition than usual. Surplus funds are generally invested in land.

#### About All Tillable Land Already Cultivated.

Charles J. Eckhardt, cashier First National Bank, Yorktown, Texas:

The increase in cotton acreage will be very small, owing to many farms here, and about all tillable land is in cultivation. Farmers diversifying has proven a success, and the benefits derived are noticeable. On account of the boll-weevil destroying two cotton crops, the farmers were in bad shape, and it will take a few more crops to bring them out of debt. Those having money to spare are investing in farm land.

#### Planting Vegetables Largely.

B. W. Klipstein, cashier First National Bank, Beeville, Texas:

The acreage in cotton in this county will be increased about 25 per cent. compared with last season. This section is

planting a good deal of vegetables, and planters seem to do well with diversification. The financial condition of the farmers in this section is good and most are investing surplus funds in buying land.

#### Truck Farming Doing Well.

G. L. Wilson, assistant cashier Continental Bank & Trust Co., Big Sandy, Texas:

1. About the same.
2. We should judge that it will.
3. Very well with truck farming.
4. The general condition is poor.

#### Investing in Land Notes.

First National Bank, Brenham, Texas:

1. About the same.
2. Yes.
3. Planting more corn.
4. Good; buying North Texas land notes.

#### Considerable Increase in Small Grain and Berries.

D. W. Sweeney, cashier First National Bank, Bonham, Texas:

Too early yet to say definitely, but indications point to increase in acreage of 15 to 20 per cent. Diversification is being practised to some extent, but cotton will still be our main crop and the one on which we depend for our money supply. Considerable increase in small grain, berries, etc. The financial condition of the farmers is about the same as last year, and they have had very little surplus for investment during the past year.

#### Will Not Be Forced on the Market.

Citizens' National Bank, Cisco, Texas:

1. It will be some larger.
2. Continued high price of cotton will cut first crop to some extent; crop will not be forced on market as formerly.
3. Holding it down.
4. They are still paying for their land.

#### Little Departure from Old Conditions.

Delta National Bank, Cooper, Texas:

1. Acreage about the same.
2. This country has not diversified to any extent, and there will be very little departure from old conditions this year.
4. Crop last year was very small. Farmers are short of funds, but most all of our lands will be cultivated.

#### Increase in New Lands.

E. E. Anthony, cashier Farmers and Merchants' National Bank, Comanche, Texas:

1. Ten per cent. increase; new lands.
2. Yes.
3. Reducing cotton acreage.
4. Better fixed financially than ever before; investing in better homes and farm implements.

#### Acreage Reduced by Diversification.

Joseph Hirsch, assistant cashier Corpus Christi National Bank, Corpus Christi, Texas:

The cotton acreage in Nueces county has been considerably reduced, owing to diversification of crops. We have a fine truck country. Very little cotton planted near us this year. However, Duval county, which joins us, and which depends principally upon cattle and cotton industries, has materially increased its acreage. We fancy one will offset the other, providing they make an average crop. Prospects for crop at present are good. General condition of our farmers is good. They owe little. Most who accumulate any surplus put it in more land or in improvements.

#### More Corn to Be Planted.

J. H. Moore, cashier First National Bank, Deport, Texas:

The farmers of this section will plant about the same amount in cotton that they did last year, and if anything it will be less, and more will be planted in corn, as we had a very short corn crop, and the



farmers are trying to plant enough to do them. The most of the corn is already planted and the ground prepared for cotton, but the weather is cold and spring very backward.

#### More Small Grain.

First National Bank, Corsicana, Texas:

1. Can't tell you, but we believe there will be about 10 per cent. increase.
2. Yes.
3. More small grain.
4. Condition good; investing in more land.

#### Condition of Farmers Below Average

W. D. Morrow, cashier First National Bank, Crandall, Texas:

1. Some increase in acreage.
2. About the same.
3. No change.
4. No surplus this year; condition worse than average.

#### General Conditions Unchanged.

National Bank of Commerce, Dallas, Texas:

General conditions and diversification about the same as last year.

#### Tending to Decreased Acreage.

E. C. Edmonds, cashier City National Bank, Eastland, Texas:

1. About the same in acreage.
2. We think it will.
3. Tending to decrease.
4. A great many are improving homes; financial condition is fairly good.

#### No Increase.

J. Blakey, president People's National Bank, Ennis, Texas:

1. No increase.
2. No.
3. In land.

#### Finances in Poor Shape.

W. N. Windom, cashier Farmers and Merchants' National Bank, Farmersville, Texas:

1. I am of the opinion that the acreage will be increased 10 to 15 per cent., on account of late spring and farmers being unable to plant as much corn and oats as they wanted, which almost forces an increase.
2. We believe that the diversification business will be carried out as far as possible, as nearly all farmers and business people are in harmony on the subject.
3. Mostly in the direction of hay, grain and truck-farming and hog-raising.
4. Finances are in poor shape here, as our section has made short crop, and the deposit in our town now about \$200,000, when it naturally should be \$300,000 to \$350,000. Very little loaning is being done either by the banks or individuals.

#### Rather Depressed.

National Bank, Farmersville, Texas:

1. Increase 10 per cent.
2. Yes, raising more hogs.
3. Fair in general.
4. Holding; rather depressed at present.

#### About the Same Acreage.

National Bank of Forney, Forney, Texas:

1. About the same in acreage.
2. We think so.
3. Corn and hogs.
4. Good; buying land.

#### Better Stock and Better Implements.

Citizens' National Bank, Garland, Texas:

1. Acreage is about the same.
2. Yes.
4. Good; better stock, better implements and more home comforts.

#### Unusual Winter Rains Have Delayed Planting.

Wm. G. Newby, president American National Bank, Fort Worth, Texas:

Your inquiry regarding the probable acreage of cotton, etc., is just a little premature, for the reason that no cotton has

been planted yet in this portion of the State, unusual winter rains having made it impracticable to prepare the ground at the usual time. Indications are, however, for the planting in this immediate portion of the State of about the same acreage as last year. The disposition among our farmers generally is to diversify more from year to year and to pay more attention to the minor products, such as poultry, dairy products, hogs, etc., which the average farmer considered only fit for the attention of the women a few years since. The North and West Texas farmer is in the most prosperous condition I have seen him during the 33 years I have lived here. He is, as a rule, investing his surplus in land, but some of it goes for blooded livestock, of which Texas can show about as much now as any of the Western States. The Fort Worth Fat Stock Show, which closes today, and at which nothing but Texas and Indian Territory stock is exhibited, will rank with any similar exhibition in the United States, the Chicago show alone excepted, for the character and quality of live-stock exhibited. West and northwest of here, in what a few years ago was considered a range country only, there is quite an activity in lands for agricultural purposes, and in that section there is being raised considerable cotton, the average crop per acre being better than in the older-settled part of the State and the crop being cultivated with much more ease than in the older portion. This will from year to year make a material difference in the cotton crop of the State, but thus far I do not believe that it has to any extent. North Texas is in fine condition at this time with reference to the season in the ground, and there is every indication so far for a prosperous crop year, but those of us who have been here longest are loth to predict this far ahead, knowing, as they do from experience, the capriciousness of our climate.

#### Ground Still Cold.

J. P. Alvey, general manager Texas Guarantee & Trust Co., Galveston, Texas:

In trying to answer you queries about the intention of planters as to acreage to be put in cotton this season, I am confronted with the fact that any reply would be more of a conjecture than absolute facts. We have an impression here that there will be little, if any, increase of acreage over the past year. We apprehend that the late freeze a week ago will cause some early-planted cotton to be replanted; the ground is still cold, and this may further delay planting. The evident tendency now is to plant more corn and other feedstuffs, and not to extend the cotton acreage materially. The farmers generally are most likely in a better financial condition than ever in the history of this State. They have, generally, money in banks; many mortgages and other liens discharged, and few new ones being created.

#### Storing in Banks.

Miller, Sayers & Co., bankers, Gonzales, Texas:

1. Increase in acreage is 25 per cent.
2. Yes.
3. Fairly well.
4. Financial condition good; buying land and storing in banks.

#### Still Buying Land.

R. P. Edrington, cashier First State Bank, Hillsboro, Texas:

1. Acreage 5 to 10 per cent. increase.
2. Yes.
3. Corn and grain.
4. Good; in more land here and in West Texas.

#### Turning to New Crops.

Citizens' National Bank, Longview, Texas:

1. Increase in acreage 5 per cent.
2. Yes.

4. Farmers in fair condition; in new crops.

#### Not Much Diversification.

First National Bank, McGregor, Texas:

1. Acreage is about the same.
2. Yes.
3. Not much here.
4. Good; buying western lands.

#### Opening Up New Farms.

H. W. Robinson, president Miles National Bank, Miles, Texas:

1. Increased possibly 25 per cent., owing to new farms being opened up.
2. Not much effort in this direction.
4. My impression is that the financial condition of farmers is good; above an average.

#### Too Early to Estimate.

Stone Fort National Bank, Nacogdoches, Texas:

Too early to tell anything about the cotton crop or what the farmers will do this season.

#### Farmers in Fair Shape.

A. H. Rywaters, vice-president Paris National Bank, Paris, Texas:

1. Acreage 10 per cent. less.
2. Yes.
3. Corn and hogs.
4. Fair shape.

#### Greater Diversification.

T. S. Garrison, vice-president First National Bank, Simpson, Texas:

1. Acreage reduced 10 per cent.
2. Yes.
3. Diversifying more than ever.
4. Fair.

#### Indications of Normal Acreage.

J. E. Longmoor, cashier First National Bank, Rockdale, Texas:

Cotton acreage in this territory was reduced last year about 30 per cent. This reduction will not be made this year. Indications point to normal acreage, no more. Diversification will continue and receive all possible encouragement from every source. Farmers are now better equipped than heretofore in this line. Ordinarily the acreage in cotton should increase in proportion to rural population, but much attention is being given to fruit culture, hogs, cattle, poultry, etc. Recent severe weather, unusual at this season, has had a discouraging effect on fruit farmers and early planting generally, but the extent of the damage is not yet definitely known. Mr. H. Lockwood has a fruit farm near town on which there are nearly 7000 trees (mostly Elberta peaches) three and four years old. A freeze sufficient to create ice one-fourth of an inch thick struck the trees while in the bud and blossom stage. Opinions differ as to whether the fruit is entirely killed or not. Farmers generally are in better shape financially than ever before, but they practically have no surplus yet to invest in anything except sundry improvements around their homes. They live better, dress better, have better teams and vehicles and owe less at the stores than formerly, and more of them have bank accounts.

#### Little Cotton Planted Here.

Thomas E. Mathis, cashier First National Bank, Rockport, Texas:

There is no considerable amount of cotton planted in Aransas county, nor has there been at any time. Early truck-growing and small fruits are the principal crops of the county.

#### Bankers and Growers Harmonious.

L. V. Harcourt, assistant cashier Jester National Bank, Tyler, Texas:

1. Acreage in cotton is about 10 per cent. less.
2. The bankers and growers are working in harmony as much, if not more than last year.
3. This has been a fruit and vegetable country for many years; in fact, it is the

leading fruit section of the State, and the diversification idea grows each year in this section.

4. Their financial condition is not as good as last year, owing to a short cotton crop and an unfavorable fruit crop, but the conditions at present point to a large and profitable fruit crop.

#### "The Boll-Weevil's a Grand Success."

W. T. Watt, president Provident National Bank, Waco, Texas:

1. Acreage is about the same as last year.
2. Yes.
3. Hog and hominy.
4. Good financial condition; in homes and lands.

Texas was never more prosperous. The boll-weevil's a grand success. May they continue to spread.

#### About the Same Acreage.

C. B. Bryant, cashier First National Bank, Whitewright, Texas:

1. Will plant about same amount of cotton as last year.
3. Diversifying more last two or three years.
4. Financial condition is not so good as usual, on account of short crop last year.

#### Bad Weather for Small Grain.

G. L. Blackford, president State National Bank, Denison, Texas:

It is our judgment that the acreage will be quite as much as last year, if not an increase. There was most unfavorable weather during the fall and winter for planting small grain, which would make it seem probable that the acreage of corn and cotton would be somewhat increased, particularly on the black land, where farmers have been accustomed to planting a considerable acreage in small grain. The accumulation of the farmer has been largely invested in land, which has caused the price of farm lands throughout all this section to enhance materially in value.

#### Still Troubled by Boll-Weevil.

M. B. Loyd, president First National Bank, Fort Worth, Texas:

The planters seem to have the matter well in hand, and show a disposition to curtail the acreage for cotton. This is more particularly the case in what is known as the "black land" or "cotton-belt district" in Texas, while in West Texas quite a large amount of new land will be planted in cotton, but not enough to affect the average materially. The planters of the river counties are still troubled much by the boll-weevil. All efforts to exterminate them have proved futile. So far they are still making inroads in our best cotton district. It seems that there is no telling where this matter will end.

#### Not Suitable for Diversification.

L. L. Hudson, assistant cashier Farmers' National Bank, Manor, Texas:

The cotton acreage this year will be about the same as last year; will possibly be a slight reduction. The soil in this immediate vicinity is not suitable for diversification. The farmers this year are planting a little more feed crops than usual. The financial conditions of the farmers are good. They are investing in land in Northwest Texas.

#### Potatoes and Fruit.

W. R. Grim, president Texarkana National Bank, Texarkana, Texas:

The cotton acreage in this vicinity will probably be about the same as last year. There is some diversification in this section, especially in the line of raising potatoes and planting orchards. Last year's cotton crop was almost an entire failure here, but the weather conditions have been favorable, and we now expect a good planting season. Very little can be said, of course, as yet in the matter of crop pros-

pects, but there has been up to this time more plowing done than there is in average years, on account of the exceptionally fine weather we have been having. Most of the farmers around here are in somewhat cramped financial condition, on account of the bad season just passed; still they are at work, and with careful economical management the probability is that they will this year recoup some of their losses of last year.

#### A Backward Spring.

John Donaghey, cashier First National Bank, Trenton, Texas:

We think the acreage this year will be about the same as it was last season in this part of the county. We have had a very cold, wet and backward spring, and farmers are behind with the preparation of their cotton land for this season's crop. The ground is very wet at the present time, and there is a scarcity of farm labor, and the cotton crop will necessarily be late in planting this season. There are considerable wheat, oats and corn raised in this part of the county, as well as other feed crops. The general financial condition of the farmers in this vicinity is not so good as in former years, on account of a short crop last year, and very few of them have any surplus to invest.

#### 20 Per Cent. Increase in Acreage.

M. M. Pittman, president Citizens' National Bank, Cleburne, Texas:

1. Increase in acreage 20 per cent.
2. No.
3. Expect the other fellow to diversify.
4. Farmers in fair condition financially.

#### Getting More Land.

R. B. Long, cashier Planters and Merchants' National Bank, Commerce, Texas:

1. Acreage about the same.
2. Yes.
3. Small grain.
4. Fair; surplus invested in land.

#### Finances Fairly Good.

O. G. Bowman, cashier Citizens' National Bank, Hillsboro, Texas:

1. Large increase—25 per cent., at least.
2. I think not.
3. Slowly here.
4. Fairly good; in West Texas land.

#### Almost the Same Acreage.

Dave H. Shapira, president First National Bank, Madisonville, Texas:

1. Just about the same.
2. Yes.
3. Not in any particular direction.
4. Good financial condition; in lands.

#### A Little Increase.

T. C. Jasper, cashier Plano National Bank, Plano, Texas:

I think acreage will be increased a little. The other conditions about like last year.

#### Raising Horses and Mules.

W. C. Noble, cashier First National Bank, Port Lavaca, Texas:

1. Increase in acreage probably 20 per cent. greater.
2. Cotton is our staple crop.
3. Vegetables.
4. Some attention to growing good horses and mules.

#### Cotton Not the Chief Crop.

William Kelly, president First National Bank, Brownsville, Texas:

1. Increase about 70 per cent.
2. Cotton is not our principal crop. We raise chiefly corn, sugar, rice and truck.
3. No relation to each other here.

#### Investing in New Equipment.

R. E. Colvard, cashier First National Bank, Gordon, Texas:

1. Acreage about the same.
2. No, not in this section.
3. Fair.

4. Fair; investing in new equipment and farms.

#### Many Embarrassed.

E. Key, president First National Bank, Marshall, Texas:

1. Acreage 10 per cent. less.
2. Yes.
3. Increasing forage and food crops.
4. Short crop last year leaves many embarrassed.

#### Immigration Will Increase Acreage.

A. B. Robertson, president Colorado National Bank, Colorado, Texas:

Owing to the influx of immigration to this section of the country during the past six months, it is safe to say that acreage in cotton this season will be much greater than that of last, especially as there is little or no risk from the ravages of the boll-weevil or other pests, and we have out here an intelligent class of farmers whom we think will diversify their crops to the best possible advantage when climatic conditions are considered. The general financial condition of the farmers in this vicinity is very good at this time; they are comparatively out of debt, and the most of them have some money in the bank, and many of them are investing their surplus money in lands.

#### May Be Small Increase.

John R. Griffin, cashier First National Bank, Itasca, Texas:

The cotton acreage in this vicinity as compared with last year, in my opinion, will be very nearly the same. Some few, however, will have an increase, but the majority will be about the same. If any increase, it will be very small.

#### Trying to Get Ahead of the Boll-Weevil.

W. P. Allen, cashier American National Bank, Terrell, Texas:

I think the cotton acreage will be increased 10 per cent. over last year in this county, provided that we get weather to plant it. At this writing it is raining very hard, and it will be a week or more, provided it stops now, before farmers can get in their fields, and it is cotton-planting time now if we want to get ahead of the boll-weevil.

#### Farmers Buying Corn.

S. E. Dunnam, assistant cashier, Quinlan, Texas, Continental Bank & Trust Co., Fort Worth, Texas:

1. Will be about the same, owing to the fact that quite a large acreage was uncultivated in this vicinity last year on account of the excessive rains.
2. We think so.
3. Planting more small grain and giving more attention to the raising of hogs.
4. Farmers are rather in a bad financial condition, owing to practical failure of grain crop last season. Most all farmers are buying corn to feed for the present crop.

#### A Great Cotton County.

O. E. Dunlop, Citizens' National Bank, Waxahachie, Texas:

Our cotton acreage for this year, I think, will be 10 per cent. greater than past year. This county is a great cotton-growing county. Our farmers are in good financial condition.

#### Fear an Increase.

J. D. Jernigan, cashier First National Bank, Commerce, Texas:

1. We fear it will be 15 to 20 per cent. more.
2. Not so much as it should be.
3. Slowly.
4. Fair to good; principally real estate.

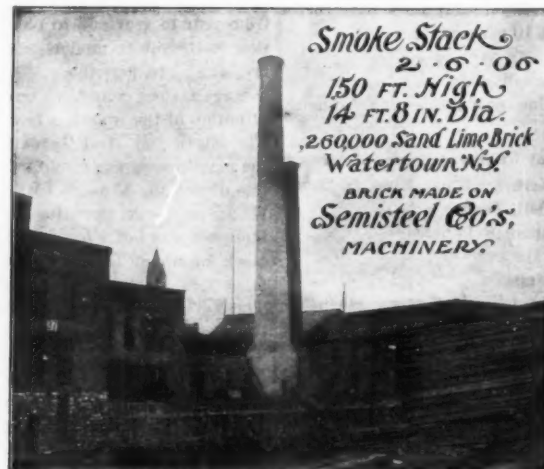
According to figures from the records of Building Inspector Frank A. Pittman of Atlanta, Ga., 5831 residences, built at an estimated cost of \$19,897,501, have been erected in Atlanta since July, 1895.

## MECHANICAL

### A Model Sand-Lime Brick Plant.

In view of the active interest manifested throughout the South in the manufacture of building bricks from sand and

a platform. Here the water is added and incorporated with this mixture. From these two mills the mixture emerges free from lumps and in proper condition to be formed into bricks. By means of a very ingenious conveyor both presses are kept



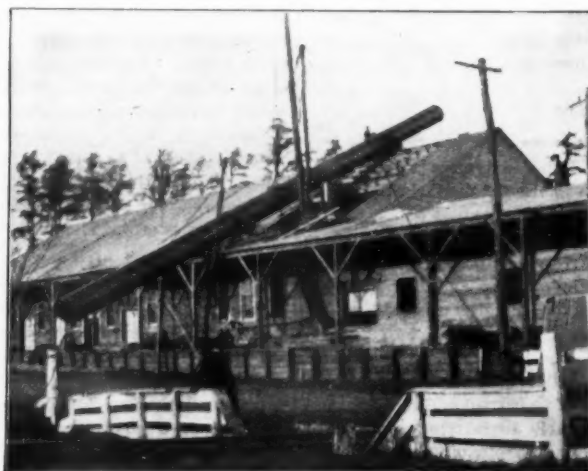
A SAND-LIME BRICK CHIMNEY.

lime and the establishment of plants for this purpose, it is pertinent to refer to a model sand-lime brick works just completed at Schenectady, N. Y., for the Sandstone Brick Co.

Just 20 weeks after ground had been

supplied. The presses are the well-known rotary type, and are strong, massive machines, capable of exerting a tremendous pressure.

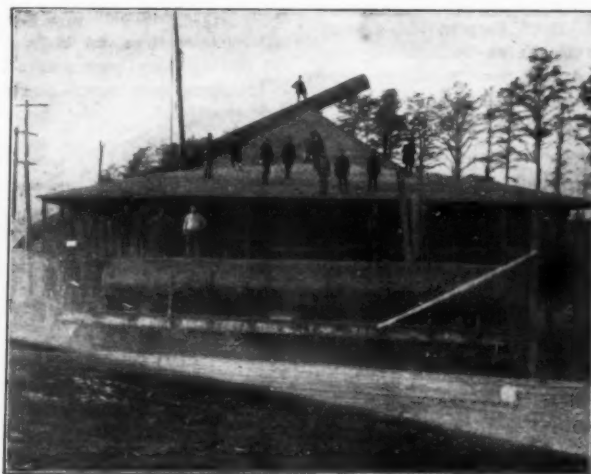
The mixture of sand and lime is received by the press in a mixing pan.



A MODEL SAND-LIME BRICK PLANT.

broken the plant was in operation. The brick machinery was furnished by the Semisteel Company of Cleveland, Ohio, and consists of two Samson presses, dryer, conveyors, mixers, cylinders and cars.

which, besides giving the material an additional mixing, feeds the press and fills the molds automatically. The table in which the bricks are made is circular, and revolves around a center post. The power



A MODEL SAND-LIME BRICK PLANT.

The sand and hydrated lime is first measured off into a pan mixer. From here it falls by gravity into a pug mill. After traveling through this mill it is elevated to another pug-mill mixer which stands on

for the presses is transmitted by means of a crankshaft connected to a massive slow-moving rocker beam. As the bricks are made one at a time, all this enormous pressure is received by each and every



brick. The quality of a brick depending more upon the amount of pressure than upon the quality of the sand, a superior brick is the result. This also maintains its maximum pressure for a relatively long period of time, accomplishing this by means of an extremely simple means, whereby the pressure is brought to its maximum before the crankshaft arrives at dead center. During the travel of the crank from this point to a point at the same distance the other side of center this same pressure is sustained. In common

cotton mills, etc., the reasons given for advocating so radical a departure from present practice being, first, to improve the fire hazard; second, economy in operation, and third, freedom from loss due to water failure.

This suggestion is in the right direction, and there seems no reason for stopping here, and if the internal-combustion engine, suitable for using crude oil, fuel oil or ordinary illuminating oil, that is, kerosene, is taken into consideration, the most economical means of power it is pos-

positively driven oil pump into the vaporizer, the walls of which, being kept hot, vaporize the oil, while air is drawn directly into the cylinder by the suction of the piston, so that a combustible mixture is formed only when the piston on its return stroke compresses the air and forces it through the narrow neck shown into the vaporizer. The air and oil form a combustible mixture, which, when ignited, expands, delivering the energy of its combustion to the piston, and at the same time heating the walls of the vaporizer to

ing installed by the De La Vergne Machine Co. of New York city for the Baldwin Locomotive Works, Philadelphia, which recently ordered 26 125-horse-power "Hornsby-Akroyd" oil engines.

The highly satisfactory results of the severe tests to which this engine has been put in wireless telegraph stations have shown its reliability to be on a par with that of steam. The Marconi Company's Cape Cod station (Fig. 2) is furnished with current by generators belted to "Hornsby-Akroyd" engines. Here the work is unusually severe, the load often changing momentarily from 25 per cent. overload to no load.

In Panama the United States government uses "Hornsby-Akroyd" oil engines in operating its wireless telegraph station, which furnishes a means of communication with this country by way of Cuba, where these engines are also used. The government has installed a number of these engines for operating the lights and fog signals in lighthouses, that at Navesink Highlands, N. J., the largest in America, having a powerful electric searchlight operated by oil-engine power.

From the fact that these engines have been so successful in direct competition with steam and gas engines, and on account of the immense quantities of low-grade oil being drawn in increasing amounts from newly-discovered fields, it would seem as though oil engines will have to be reckoned with more and more every day in the industrial world.

#### "Favorite" Sand-Cement Brick Machine.

The "Favorite" sand-cement brick-making machine is manufactured by the Cement Machinery Co. of Jackson, Mich.

An accompanying illustration gives a good idea of the construction of this machine, showing the dividers and tamper-up forming 20 sand-cement bricks  $3\frac{3}{4} \times 2\frac{3}{4} \times 8$  inches, a standard size. The scraping board furnished with each machine prevents the overflow of surplus material which the workman might waste while filling the pockets. When the pockets are filled the scraper is pulled forward and brings the mix flush with the tops of the pockets.

The next operation is to tamp the bricks, 20 at a time. This is done by taking hold of the stirrup-shaped handles which are fastened to the tamper, bringing the tamper forward, and then pound up

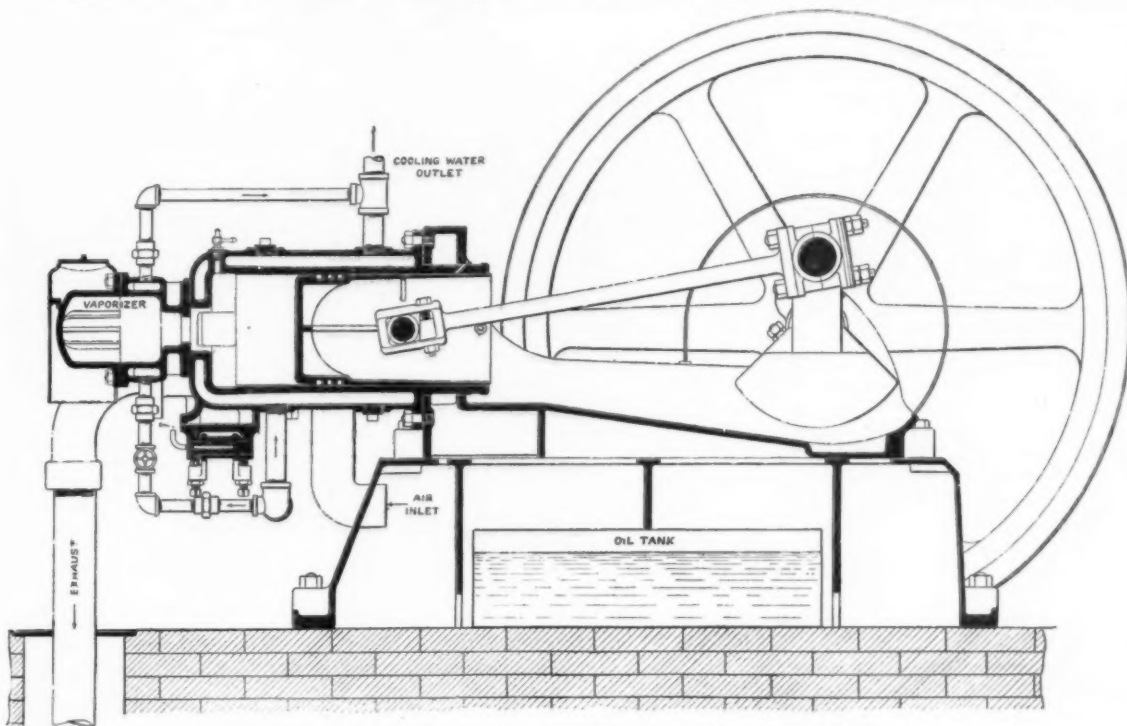


FIG. 1—VERTICAL SECTION OF HORNSBY-AKROYD OIL ENGINE.  
(See "Economical Power and Fire Hazards.")

with all other rotary presses, it delivers the brick to the top of the table without any shocks. From here they are handled directly to the cars, holding 1000 bricks. The bricks are so hard as they come from the machine that they will bear the weight of a man without breaking. The two boilers of the plant were furnished by the Stirling Consolidated Boiler Co., general offices Trinity Building, New York. The engine was made by the Allis-Chalmers Company of Milwaukee, Wis. A little marine set furnishes the electricity for lights and the motors used on the portable sand conveyors. The electric lights make it possible to operate the plant 20 hours a day in two shifts of 10 hours each. The water is obtained from a driven well 300 feet deep. Two reservoirs store enough water to run the boilers several days. The sandbank is directly back of the plant.

During the greater portion of the year it is not necessary to use the dryer at all, but during the wet spells a small part of the sand is dried.

The brick company has ordered two more presses from the Semisteel Company to give a daily capacity of 72,000 bricks. There is no dust and dirt about the plant, because the lime is not hydrated or ground there, but bought already hydrated. Mr. Kastenhuber, engineer of the company, says that he had concluded it did not pay to attempt to hydrate the lime, as by using lime that has been hydrated not only is a clean factory obtained, but the bricks are free from unsightly lime spots. Accompanying illustrations show views at the plant described.

#### Economical Power and Fire Hazards.

By T. ROSSELL.

In a recent issue of a textile publication there appeared an article setting forth the very interesting proposition of substituting gasoline engines for steam power in gins,

sible to procure is arrived at, and further, the danger of fire, always present where gasoline is used, is entirely eliminated. Some makes of oil engines are also much simpler than gasoline engines, notably the "Hornsby-Akroyd" Patent Safety Oil Engine, for the reason that the electric igniter, with all of the delicate mechanism incidental to its use, is entirely eliminated in these engines.

The relative cost of fuel for the two plants so operating is very nearly in proportion to the cost per gallon of the two oils, or 12 cents for gasoline and 1 to 4 cents for crude oil; that is, on this basis the gasoline engine would cost  $1\frac{1}{2}$  cents per actual horse-power per hour, whereas the engine using the heavier fuel would cost  $\frac{1}{4}$  c. to  $\frac{1}{2}$  c. per actual horse-power per hour.

In taking up the question of an internal-combustion engine suitable for use in the South it is self-evident that the engine deserving of the most consideration is the one capable of operating successfully on the low grades of crude and fuel oils with which this section is so bountifully supplied by the oil fields of Texas and other States.

The "Hornsby-Akroyd" engine, like most internal-combustion engines, operates on the Beau de Rochas or four-stroke cycle, receiving an impulse every second revolution of the flywheel. An accompanying illustration (Fig. 1) shows a vertical section of the engine, whose simplicity of design can also be readily understood from the fact that it requires no carburetors, igniting tube, spark coils, batteries or magnetoes, ignition being effected by the heat of compression and the heat received from the vaporizer walls, and no enclosed crank chamber is used, all parts being open to inspection and easily accessible.

The oil, which is stored in a tank in the baseplate of the engine, is injected by a

high enough temperature to vaporize and fire the next charge of oil. On its return stroke the piston expels the burned gases remaining in the cylinder, and on the next out stroke draws in a fresh charge of air, while the oil is again being injected into the vaporizer to furnish power for the next out stroke.

A unique feature is the vaporizer, which, being connected to the cylinder by only a narrow neck, prevents the carbon deposits resulting from the use of crude or impure oils from entering and cutting the piston, piston rings or cylinder. This de-

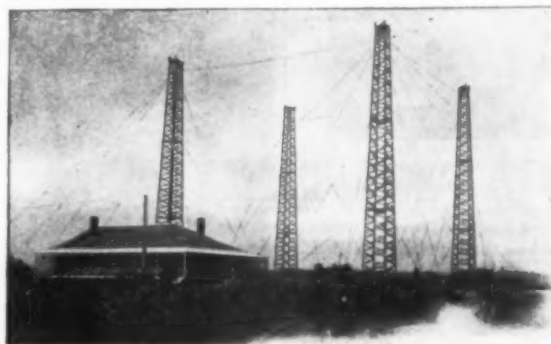


FIG. 2—MARCONI STATION USING HORNSBY-AKROYD ENGINES.

sign makes it possible to use in the "Hornsby-Akroyd" engine almost any mineral oil not heavier than 24 degrees Beaume and sufficiently liquid to pass through the oil pump.

The regulation is sufficiently close to allow of the engine being run direct connected to electric generators, and several 125-horse-power engines direct connected to generators, as well as a number of the same size engines direct connected to air compressors and others belted to machine tools and general machinery, are now be-

and down on the bricks until they are packed or tamped to a width of  $3\frac{3}{4}$  inches, the inside dimensions of the pockets being  $2\frac{3}{4} \times 4\frac{3}{4} \times 8$  inches. It is therefore seen that the bricks are depressed seven-eighths of an inch each before being taken from the molds or pockets.

This seven-eighths-inch depression is said to insure a dense and perfect brick with sharp edges and corners, either by facing with a rich face or marble dust, granite, sandstone or rich cement, either on the top or on the bottom of the bricks,

with a solid body of a coarser material.

The tamper rail is arranged with a "stop" at the rear of every pocket, 20 in all. This "stop" is so arranged that it signals the operator when the seven-eighths-inch depression in the brick is made, which is the limit for tamping a brick of this size for quality, appearance and durability. The tamper is equipped with "balancers," located on the back of the machine, one on each side. By means of these balancers the tamper is raised and lowered with ease. The front door is also equipped with a balancer to offset the weight of the door when lifting it up. To prevent warped bottom boards a shield is used on top of them of 20-gauge galvanized iron  $8\frac{1}{4}$  inches wide and flanged  $1\frac{1}{2}$  inches on the front side.

The dividing blades are three-eighths of



"FAVORITE" SAND-CEMENT BRICK MACHINE.

an inch thick, to allow for the same space between each brick, so that when carrying the bricks away if the board gives a little the bricks are too far apart to touch each other. The result is that the bricks are not likely to receive injury in handling.

The front door is equipped with a projecting "boss." The front designs rest against this "boss" and are bolted to the front door. This "boss" is provided to insure accurate adjustment of designs. This machine is equipped with a parallel for making the pocket true and accurate during the operation of adjusting designs.

The "Favorite" is said to have a proven test capacity of 20 bricks every 40 seconds, which would mean a run of 18,000 bricks every 10 hours.

The Cement Machinery Co. also makes four high-grade concrete-block machines,



AN \$8000 RESIDENCE BUILT OF "NORMANDIN" BLOCKS.

mixers, etc., its leader being the Normandin block machine, briefly described as follows:

The "Normandin" is, in fact, "10 machines in one." Blocks can be molded by it in any height from 1 to 9 inches, inclusive, in any length from 1 to 32 inches, inclusive, and in widths from 1 to 16 inches, inclusive. Attachments are furnished for making circle, octagon and column blocks with each machine.

Six different designs are furnished with each machine, equivalent to 12 heavy and durable doors, besides two designs for circle attachment; same are used for either corner or straight blocks—three of rock face, one of chisel, one of plain and one of panel, or a choice of any six designs the Cement Machinery Co. may have in stock.

The Normandin machine has adjustable cores, adjustable sides, adjustable ends, adjustable inside rock angle attachments,

adjustable face designs, adjustable facing-block attachment, adjustable division plates for fractional blocks, adjustable inside octagonal attachment, and adjustable lifting carrier. Yet, in spite of the remarkable adaptability indicated by such a wide range of adjustment, the machine is simple in construction and easily understood.

One operation of the lever raises or lowers cores. One operation unlocks and opens or closes and locks all sides and ends of mold formed for either straight or corner blocks. Cores are always in alignment.

The lifting carrier can be operated either by hand or crane. It facilitates the handling of blocks while fresh, saves time and inconvenience. The machine is durable.

#### New H. W. Caldwell Foundry.

Of late years the H. W. Caldwell & Son Co. of Chicago has given more than ordinary attention to the manufacture of large pulleys, band wheels, flywheels, sheaves, gears and other heavy castings. This branch was given increased impetus when the Caldwell Company, something more than four years ago, acquired the patterns, preparations, molding machines and other appliances for the manufacture of the well-known Walker machine-molded gears and other heavy power-transmitting machinery formerly made by the Walker Manufacturing Co., Cleveland, Ohio. The trade in this line of work, together with general requirements in the way of castings, has grown so steadily that the Caldwell Company has been compelled during the past year to add to its plant the large new foundry shown by the accompanying illustration.

The foundry building is 115 feet wide and 184 feet long. On the ground floor is the center or main bay, 50 feet wide, full length of the building, and containing a water-tight circular pit 50 feet in diameter and 10 feet deep. This is used for molding flywheels, band wheels and other heavy work. Along either side of this bay is a narrow-gauge track separating it from a 32-foot side bay served by small electric cranes. Over the main bay is a 20-ton electric traveling crane capable of 50 per cent. overload and having an auxiliary five-ton hoist. Above the west-side bay is the charging and storage floor, having a weight-sustaining capacity of 750 tons. Over the east-side bay is a 32-foot-wide gallery, full length of the building, used

customers a service more prompt and satisfactory in all lines.

The installation some time ago of a Niles boring and turning mill capable of finishing castings as large as 20-foot diameter and 8-foot face also enables the company to furnish heavy castings finished as well as in the rough.

For this new plant the engineer and architect was W. L. Stebbings, Chicago;

for drilling at one time any number of holes up to 12 in any position within a 15-inch square, and when the full number is not required with drills up to one-inch capacity. Especial attention is called to the straight belts, reducing friction and insuring smooth running; length of head travel; length and width of head and table bearings on column; steel spindle gears; convenient arrangement of operating



NEW 15-INCH PATENT ADJUSTABLE MULTIPLE-SPINDLE DRILL.

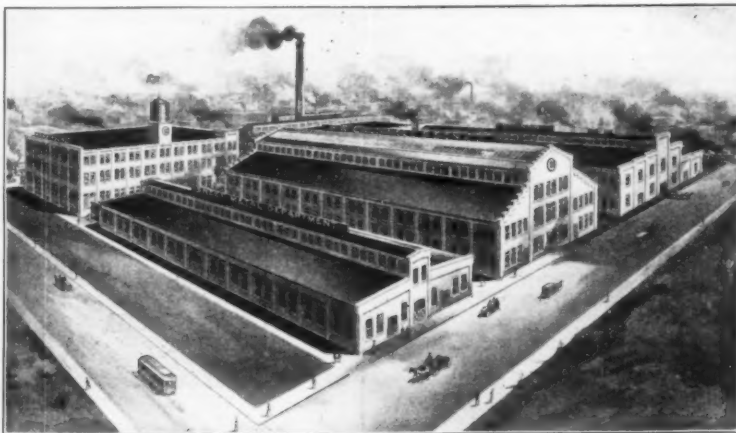
electrical engineer, Chas. G. Atkins, Chicago; electrical elevators, J. W. Reedy Elevator Co., Chicago; electric traveling crane, Pawling & Harnischfeger, Milwaukee, Wis.; blowers, P. H. & F. M. Root Company, Connorsville, Ind.; cupola, ladles, etc., Whiting Foundry Equipment Co., Harvey, Ill., and heating apparatus, Buffalo Forge Co., Buffalo, N. Y.

#### A New Multiple-Spindle Drill.

While drilling is one of the most universal of operations, it is frequently the case that little attempt is made to save time and labor in performing it. The feature of a modern drilling machine is its labor-

levers; large base with finished surface directly in front of column, enabling it to be used for large or heavy pieces in place of table, and the self-oiling bearings. A full specification of the new drill reads as follows:

"This machine is belt-driven, has three changes of drilling speed and three changes of power feed to each change of drilling speed; counterbalanced head with 12 inches of vertical motion by rack and pinion; hand feed, operated by means of pilot wheel and power feed by belt. The table, 20x24 inches, is adjustable on column by a steel screw with thrust bearing to take strain. Each spindle, made of best crucible steel, has one inch of vertical adjustment to compensate for drills of different lengths, and is fitted with a taper hole to receive either a taper-shank drill or a chuck fitted with taper-shank plug. The adjusting slots in flange of head are so arranged as to facilitate an easy setting of spindle arms; long arms permit any spindle to drill at center. Machines furnished with a fewer number of spindles can be equipped later with the maximum number. They can also be supplied with an enclosed quick change all-gear drive and an all-gear feed. The other dimensions are as follows: Number of spindles, from 4 to 12; size of drills, according to number; maximum size of drilling circle or square, 15 inches; minimum size of drilling circle or square, according to number of spindles used; greatest distance from spindles to table in lowest position, 24 inches; distance from floor to table in lowest position, 18 inches; rise and fall of table,  $18\frac{3}{4}$  inches; length of table bearing on column, 14 inches; distance from face of column to center of head, 13 inches; length of bearing of head on column,  $21\frac{1}{2}$  inches; width of column on face, 9 inches; diameter of hand-wheel, 24 inches; size of base, 24x60 inches; size of cones, 8, 10, 12,  $12\frac{1}{2}$  inches; size of tight and loose pulleys, 14x5 inches; size of finished base, 24x25 inches; floor space, 33x61 inches, and height over all, 84 inches."



H. W. CALDWELL & SON CO.'S NEW FOUNDRY.

for snap-flask and bench molding. The gallery and the charging floor have the usual narrow-gauge tracks and trucks, and material is taken to and from these floors by electric elevators. The average melting capacity of the present cupola is 12 to 14 tons per hour. Arrangements have also been made for another and larger cupola.

This new foundry has not only added to the Caldwell Company's line larger and heavier work than has hitherto been possible, but has enabled them to give their

saving quality; a 10-spindle machine, for instance, saves (so manufacturers claim) 90 per cent. in labor against drilling holes single. It is therefore of interest to refer to a new 15-inch patent adjustable multiple-spindle drill which is being introduced by Messrs. William Gardam & Son of 45 Rose street, New York. This firm states that its new machine has many improvements over previous designs; that it is strongly built, compact, and has a considerable range of work, as it can be equipped



# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

An correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

## ALABAMA.

Bessemer — Spoke and Handle Factory. — Robinson Bros. of Selma, Ala., have purchased the property and plant of the Krebs Manufacturing Co. and will remodel and equip for the manufacture of spokes and handles.

Birmingham — Blast Furnaces, Steel Plant, etc. — It is stated that the Tennessee Coal, Iron & Railroad Co.'s directors decided at their meeting last week to proceed with improvements that will thoroughly remodel the steel plant and blast furnaces to give them the highest state of efficiency, and that general improvements will be made in the coal-mining departments by introducing additional mechanical equipment necessary to secure a greater output of coal and coke, as well as to improve the quality of these products. In January it was announced that the company increased its capital stock from \$23,000,000 to \$30,000,000 for general improvements, as referred to several times in these columns; general offices at Birmingham; New York offices at 100 Broadway, New York.

Bradford (P. O. Trussville) — Coal Mines and Coke Ovens. — Imperial Coal & Coke Co., recently organized at Birmingham, Ala., with \$120,000 capital stock, has acquired the coal mines at Bradford and Dixiana in Jefferson county, together with 103 coke ovens at Bradford, which will be operated and the property further developed. Y. A. Dyer is president of the company; J. C. Persons, vice-president, and H. Hammond, secretary-treasurer.

Demopolis — Cement Plant. — Alabama Portland Cement Co., incorporated in Great Britain, has filed a copy of its charter, naming as its incorporators J. Topham Richardson, Reigate, Surrey; Frank Richardson, Ashstead Park, Sussex; J. H. Pirrie, Green Lanes, N.; James H. Lewis, 21 St. Margaret's road, Brookley, S. E.; Charles S. Hunt, 25 Bixted road, Herne Hill, S. E.; John J. Waller, Hitherford road, Streatham, and William Henry Young, 10 Winchester avenue, Bruneberg, all of London, England. The company is developing cement deposits in Marengo county, and was recently reported

to expend \$200,000 in improvements, enlarging plant, etc.; capital stock \$500,000.

Florence — Cannery. — Florence Canning & Preserving Co. is the title of company recently reported as being organized by H. J. Moore and associates. A frame building 50x150 feet will be erected and equipped for 300 cases daily of fruits and vegetables. About \$8000 will be invested. Contracts have all been let.

Gadsden — Iron and Steel Plant. — In connection with the announcement last week that the Southern Steel Co. has sold \$3,000,000 worth of bonds, it is stated that \$2,250,000 will be appropriated for the company's proposed extensive improvements, of which details have been heretofore stated. It is reported at Gadsden that the first improvements will be increasing the steel output by building two more open-hearth furnaces, a mixer and a blast furnace of about 300 tons daily capacity. The additional 500-ton rod mill is also reported as to be constructed during the summer. E. T. Schuler is president of company.

Geneva — Cannery. — W. C. Rogers & Co. contemplate establishing cannery.\*

Gordon — Saw and Planing Mill. — Gordon Lumber Co. has been incorporated with \$200,000 capital stock to erect saw and planing mill with a daily capacity of 50,000 feet. J. W. Carpenter of Scranton, Pa., is president; G. C. Raught, Nicholson, Pa., vice-president, and S. N. Simrell, Scranton, Pa., secretary-treasurer.

Huntsville — Chair Factory. — Robert Dickinson and George Boyle will establish plant for the manufacture of rustic chairs of all kinds for lawns and galleries.

Mobile — Brick Works. — Chartered: Kipling Brick Co., with \$15,000 capital stock. Daniel E. Jett is president; George M. Jett, vice-president; C. E. Dupree, secretary, and James T. Jett, treasurer and general manager.

Mobile — Construction Company. — Interstate Construction Co. has been incorporated with an authorized capital stock of \$25,000. Charles H. Owen is president; Jules J. Hennebique, vice-president, and J. R. D. Bray, secretary-treasurer.

Montgomery — Flour and Meal Mill. — Hobbie & Teague Company have let contract to Graves & Anderson for four-story brick buildings 130x125 feet, with stone trimmings, to be equipped as flour and meal mill. A feed mill for grinding corn, oats and other waste may be installed. Two electric motors will be installed and electricity will be used as motive power. About \$50,000 will be invested.

Selma — Land Improvement. — North Highland Land Co. has been incorporated with \$30,000 capital stock. F. M. Abbott is president; J. B. Ellis, vice-president, and J. K. Graham, secretary-treasurer.

Sycamore — Cotton Mill. — John A. Lewis and associates expect to organize a cotton-mill company. Mr. Lewis was previously mentioned in this connection.

Thomaston — Brick Works. — Thomaston Brick Co. has been incorporated with \$5000 capital stock by J. O. Clancey, W. H. Helton and others.

Tuscaloosa — Water-works, Electric-light and Gas Plants. — Robert Jemison and associates have secured franchise to construct water-works, electric and gas plants.

Union Springs — Drug Company. — Incorporated: Ravenscroft Drug Co., with \$20,000 capital stock, by F. F. Ravenscroft, T. R. Martin and others.

## ARKANSAS.

De Queen — Land Improvement. — Southern Land & Townsite Co. has been incorporated with \$25,000 capital stock by Herbert Dierks, M. F. Allen, T. E. Brown and others.

Eureka Springs — Electric-light, Power and Ice Plant. — Matthews & Barnes will begin within 90 days the construction of electric-light, power and ice plant. About \$20,000 will be invested. G. U. Matthews and C. M. Barnes were mentioned last week as having secured franchise to construct electric-light plant.\*

Fort Smith — Land Improvement. — Union Trust Co., Little Rock, Ark., Moorhead Wright, treasurer, is arranging for the development of 126 acres of suburban property. It is proposed to divide the tract into building lots, install sewerage, gas, water, etc.

Harrison — Zinc Mines. — Reports state that J. F. Saylor and associates of Des Moines, Iowa, have purchased at \$16,000 the Empire zinc mine in Boone county.

## DISTRICT OF COLUMBIA.

Washington — Steam Laundry. — G. A. Klinefelter of the Elite Laundry Co., Fayette and Greene streets, Baltimore, Md., will erect steam laundry at 2117 and 2119 14th street N. W.; two stories, 38x40 feet; brick with stone trimmings; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$17,000; Frank A. Welsner, architect, Fayette and Greene streets, Baltimore, Md.

## FLORIDA.

Bayard — Saw-mill. — L. G. Bayard will erect saw-mill.

Fort Pierce — Electric-light Plant. — St. Lucie Ice Co. will install electric-light plant of 2000-incandescent and 14-arc lamp capacity, and bids for same are now being received. Address R. Whyte, president.\*

Gainesville — Street-paving. — Southern Fuel & Supply Co., Jacksonville, Fla., has contract to lay four miles of granolithic combination curb and gutter and two miles of macadam pavement.

Jacksonville — Springbed Factory. — Florida Spring Bed Manufacturing Co. has secured permit for the erection of proposed two-story artificial-stone building 97x115 feet.

Jacksonville — Machinery Company. — M. Malsby, J. W. Brown and E. I. Brown have incorporated the Malsby Machinery Co.

Jacksonville — Automobile Repair Shop, etc. — Robert P. Nelms will erect two-story building 42x105 feet of white pressed brick to be equipped as automobile garage, repair shop and office building; cost \$7500. Electric lights will be installed. Wm. Stinson has contract for the construction.\*

Lakeland — Phosphate Plant. — It is reported that C. G. Meminger and associates will establish a phosphate plant.

Live Oak — Machine Shop. — It is reported that Robbins & McGeehee have purchased site and will erect addition to machine shop.

Marysville — Lumber Plant. — West Florida Hardwood Co. has been incorporated with \$35,000 capital stock. Charles W. Hagerman is president and general manager, and Eugene B. Nettleton, secretary-treasurer, both of Philadelphia, Pa.

## GEORGIA.

Atlanta — Publishing. — State Board Publishing Co. has been incorporated with \$5000 capital stock and privilege of increasing to \$50,000 by William Crenshaw, Hansell Crenshaw and others.

Atlanta — Hardware Company. — Chartered: Lowry Company, with \$12,500 capital stock and privilege of increasing to \$25,000, by E. R. Lowry, George S. Lowndes, J. E. Hunnicutt and others.

Atlanta — Publishing. — Chartered: Cotton Journal Publishing Co., with \$25,000 capital stock and privilege of increasing to \$100,000, by Harvie Jordan, Richard Cheatham and B. Dixon Armstrong.

Augusta — Street-paving. — It is reported that W. F. Howe has contract at \$2.06 per square yard for paving two streets with small Belgian blocks.

Fitzgerald — Railroad Repair Shops. — Reports state that the Atlantic & Birmingham Railway has secured site on which to locate proposed shops; George D. Wadley, Waycross, Ga., general manager.

Lagrange — Cotton Mill. — Elm City Cotton Mills, previously reported incorporated with capital stock of \$250,000, will probably install 10,000 spindles, but has not finally determined details. A. F. Walker of Atlanta, Ga., is engineer in charge. Construction work will probably begin by April 15 and machinery be purchased by May 1.

Macon — Lumber Company. — W. G. Ragland, H. J. Richter and associates have incorporated the Lake Jackson Lumber Co. with \$5000 capital stock.

Macon — Land Improvement. — Edward A. Horne, Joseph Bloch, Henry M. Sours and associates have incorporated the Columbian Realty, Loan & Improvement Co.

Macon — Levee Work. — Ocmulgee Levee Co. has been organized with \$10,000 capital stock for building a levee along the banks of the Ocmulgee river near Macon.

Sandersville — Sewerage System. — City contemplates issuing bonds for constructing sewerage system. Address The Mayor.

Savannah — Car-wheel Foundry. — Decatur Car Wheel & Manufacturing Co. of Birmingham, Ala., has secured site on which to locate

plant for the manufacture of car wheels having a daily capacity of 300. W. J. Morrison is president.

Vienna — Water-works. — City will vote April 11 on a \$20,000 bond issue for constructing water-works. Address City Clerk.

## KENTUCKY.

Clay City — Saw-mill. — It is reported that the Swann-Day Lumber Co. will rebuild saw-mill reported burned last week.

Columbia — Lumber Plant. — Standard Hardwood Lumber Co. of Buffalo, N. Y., is arranging for the erection of lumber mill.

Hopkinsville — Flour Mill and Grain Elevator. — A company is being organized with \$50,000 capital stock to erect 350-barrel flour mill and 60,000-bushel grain elevator. R. A. Rogers will be manager.

Lexington — Construction Company. — Herbert & Griten Construction Co. has been organized by R. L. Herbert of Lexington and C. P. Griten of Chicago, Ill.

Louisville — Electric-light Plant. — Louisville Lighting Co. is arranging to make extensive improvements to plant, increasing the capacity 50 per cent. It is proposed to install a new turbine motor capable of generating 3000 kilowatts, new generators, boilers, etc., and erect building to house them. It is estimated that about \$300,000 will be expended.

Madisonville — Electric-light Plant. — City is arranging for the construction of electric-light plant at a cost of \$25,000 to \$30,000. Steam engines, generators, boilers, heaters, pumps, pole-line construction and all electrical equipment will be required. Bids for same will be opened May 1. For particulars and full specifications address W. C. Morton.\*

Paducah — Sewerage System and Street-paving. — City will shortly begin making surveys, plans, etc., for extending sewerage system to take in about eight miles of pipe in new territory. An ordinance is also before the council to pave 10 blocks of street with brick; L. A. Washington, city engineer.

Winchester — Road Improvements. — Conkright-White Pike Co. has been organized with B. C. Fox, president; A. E. Sams, vice-president; Dr. Richard Allen, secretary, and B. P. White, treasurer, for building three miles of pike road.

## LOUISIANA.

Abbeville — Water-works and Electric-light Plant. — Wm. Macintosh is engineer in charge of the construction of water-works and electric-light plant, previously mentioned. A brick building will be erected at a cost of \$5000 and machinery installed at a cost of \$15,000. About \$35,000 will be invested in piping and pole-line construction. Contracts have all been let.

Baton Rouge — Water-works. — O'Neil Engineering Co., Dallas, Texas, is preparing plans and specifications for water-works system to be constructed at a cost of \$250,000. Water will be secured from an artesian well at a depth of 2000 feet; machinery to be of the latest type, including water-tube boilers, compound-duplex condensing pumps, air compressors, heaters, etc. A brick power-house and stack of concrete steel, reservoir, etc., will be built and cast-iron water mains used.

Eunice — Saw-mill. — Savoy Lumber Co. has been organized with Rudolph Savoy, president; Nerson G. Johnson, superintendent, and Dudley Berwick, secretary-treasurer and general manager. Arrangements will be made at once to erect mill.

Homer — Planing Mill. — Reports state that the McCulloch Lumber Co. of Shreveport, La., has secured site on which to erect planing mill.

County Naval Stores Co. has been incorporated with \$300,000 capital stock. R. M. Davis of Biloxi, Miss., will be president.

Killona — Cane Mill. — Whitney Iron Works, New Orleans, La., has begun the construction of proposed cane mill for Mrs. D. A. Milliken on the Waterford plantation. The mill will have six rollers of 34 inches diameter by 78 inches in length; housings to have 18-inch face and the roller wheels 16-inch face; main spur wheel to have an 18-inch face and 5-inch pitch, and the mill to be driven by a 25x54-inch Corliss engine. The plant will have a capacity for grinding 1000 tons of sugar-cane daily.

New Orleans — Machine Shops. — Haubtman & Loeb Co. has recently purchased site, 275x200 feet, on which to erect machine shops, office, store and warehouse. The company will rebuild machinery, deal in new and second-hand machines.

**New Orleans—Plumbers' Supplies.**—Manion & Co., dealers in plumbers' supplies, is being reorganized with \$300,000 capital stock to operate on an enlarged plan. A five-story brick and steel building 100x195 feet to cost \$100,000, and a warehouse 35x110 feet, to have 5000 square feet of floor space, will be erected.

**New Orleans—Sewerage, Water and Drainage System.**—Sewerage and Water Board is considering the issuance of \$8,000,000 of bonds to complete the sewerage, water and drainage systems.

**New Orleans—Grain Elevator.**—New Orleans Terminal Co. has let contract to Jas. Stewart & Co. of St. Louis, Mo., for the construction of a grain elevator at Port Chalmette; building to be a double one of steel construction, have a capacity for elevating 150,000 bushels and for storing 1,500,000 bushels.

**New Orleans—Flour Mill.**—H. T. Lawler Milling & Trading Co., Ltd., previously reported as to erect flour mill, has had plans prepared by Mackenzie & Goldstein for the necessary buildings, and bids for the erection are being received. It is proposed to erect a main building, 42x55 feet, six stories, and equipped for a daily capacity of 1000 barrels of flour; a one-story warehouse, 85x65 feet, having a storage capacity of 15,000 barrels of flour. Seven tanks, each with a capacity of 5000 bushels of wheat, will be located on roof of warehouse. About \$100,000 will be invested. The buildings will be constructed of steel reinforced with concrete. Flouring machinery has been contracted for, but engines, boilers and electrical equipment will be needed; H. T. Lawler, president and manager.\*

**New Orleans—Mineral Water.**—New Electra Water Co. has been incorporated with \$15,000 capital stock to bottle mineral waters, etc. Maurice Feitel is president, and A. Trigg Moss, vice-president.

**Ringgold—Cottonseed-oil Mill.**—J. H. McGraw and associates will establish cottonseed-oil mill.

**Shreveport—Extract Factory.**—It is reported that the Webb Manufacturing Co., Nashville, Tenn., will establish branch factory. R. Albert Sneed, it is stated, will be manager.

**Springfield—Saw-mill.**—Springfield Lumber Co., Ltd., will rebuild plant recently reported burned. A mill building 36x130 feet and dry-kiln 22x100 feet will be erected; daily capacity 30,000 feet pine and cypress lumber. About \$9000 will be invested. Architect has not been engaged.

**Vidalia—Water-works.**—O'Neil Engineering Co., Dallas, Texas, has begun the construction of proposed water-works plant to be operated in connection with electric-light plant. The water is taken from the Mississippi river by electrically-driven triplex pumps, mounted on incline-cable car and delivered to steel-concrete reservoir (settling basin); compound duplex fire pumps pass the settled water through filters to standpipe.

**St. Francisville—Brick Works.**—A company has been organized with \$12,000 capital stock to establish brick works. John F. Irvine is president; Dr. A. F. Barrow, vice-president; J. R. Matthews, treasurer, all of St. Francisville, and A. Schneblin of Plaquemine, La., manager.

#### MARYLAND.

**Baltimore—Sheet-metal Works.**—The Novelty Sheet Metal Co. has been incorporated with a capital stock of \$100,000 to conduct sheet-metal works by John W. Buck, 812 Fidelity Building, Charles and Lexington streets, Baltimore, Md.; Thomas D. Miller and James N. Miller of Howard county, Md.; Wm. C. Denemon of Allegany county, Md., and Charles A. Rogers of Frederick county, Md.

**Baltimore—Real Estate.**—The McCall Real Estate & Improvement Co. has been incorporated to deal in real estate by Sidney McCall, Richard McCall, David S. Collett, 408 Courtland street; John H. Dummer, 712 Union Trust Building, Charles and Fayette streets, and Francis I. Mooney, 712 Union Trust Building.

**Baltimore—Concrete Construction.**—The Western Maryland Concrete Construction Co. has been incorporated with a capital stock of \$15,000 to manufacture concrete blocks and construct buildings by Robert M. Hook, 400 East Madison street; John A. Sand, 1929 Park avenue; Howard C. Foreman, Joseph G. Smith and Wallace MacWilliams, 2318 East Preston street.

**Baltimore—Fertilizer Plant.**—The Miller Fertilizer Co., manufacturers of fertilizer, 5-9 South Gay street, with capital stock of \$150,000, has increased this by the issuance of 200 shares of preferred stock at par value of \$100.

**Baltimore—Shirt Factory.**—E. Rosenfeld & Co., shirt manufacturers, 32-38 South Paca street, have commissioned Louis Levi, architect, American Building, Baltimore and

South streets, to prepare plans and specifications for an addition to their shirt factory at Chesapeake and O'Donnell streets; two stories, 41x100 feet; boiler-room, one story, 17x26 feet; brick with stone trimmings; steel beams; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator. John Stack & Sons, 250 West Preston street; Joseph Schamberger, 2122 East Baltimore street; George Bunnecke & Sons, 305 St. Paul street; James F. Farley, 207 North street, and John A. Sheridan Company, 321 North Holliday street, are estimating on construction; bids to be in April 4.

**Baltimore—Road Improvements.**—The municipal Board of Awards has awarded contract to Daniel Sullivan, 13 Morley street, for macadamizing Erdman avenue for 1500 feet at his bid of approximately \$5750. This work will be done under the supervision of Commissioners for Opening Streets, J. Arthur Wickham, president, Hoen Building, Lexington and Holliday streets.

**Baltimore—Electrical and Mechanical Specialties.**—The Manufacturers' Engineering Co. has been incorporated with capital of \$3000 to deal in electrical and mechanical specialties by Carl von Hartz, S. Proctor Brady of Hess Printing Co., South and Pratt streets; F. Snowden Ehlen, T. Rowland Slingluff and R. Lee Slingluff, Union Trust Building, Charles and Fayette streets.

**Centreville—Bridge.**—A joint bridge will be built between Queen Anne's and Kent counties. It will be 75 feet long, 146 feet wide, with two spans and draw; will probably be of steel; H. B. W. Mitchell, Centreville, clerk of Queen Anne's county.

**Cumberland—Orchard Company.**—Chartered: Spring Gap Orchard Co., with \$25,000 capital stock, by W. W. Hanly, James R. Bell, George E. Ewart and others.

**Cumberland—Cement-block Factory.**—Miracle Pressed Stone Co., recently reported incorporated with \$5000 capital stock, will manufacture cement blocks. A temporary building 24x40 feet will be erected. Silas W. Wise is president; John L. McLaughlin, manager, and Jos. E. Perrin, secretary; office, 5 West Frederick street.\*

**Hagerstown—Drainage System.**—City contemplates expending \$20,000 in improving drainage system. Samuel Johnson is superintendent of streets.

**Henrytown—Pottery.**—W. F. Pattison & Sons of Pittsburg, Pa., who recently purchased 80 acres of land at Henrytown containing feldspar which is being developed, will begin at once the erection of plant for grinding the feldspar and manufacturing china and porcelain ware. About \$40,000 will be invested.

**Hyattsville—Electric-light Plant.**—Town has voted affirmatively the \$12,000 bond issue, recently mentioned, for constructing electric-light plant. Address The Mayor.

**Lonaconing—Silk Mill.**—Klots Throwing Co. of Cumberland, Md., will erect brick and stone mill building, two stories high with basement, to be equipped with engine and electric plant, air-hoisting equipment, spindles, throwing and twisting machines, fire-extinguisher system, electric lights, private telephone; power plant to have 500 horsepower capacity. This plant is the silk mill recently reported.

#### MISSISSIPPI.

**Columbus—Concrete Works.**—Kelly-Pope Concrete Co. has been incorporated with \$15,000 capital stock by I. J. Kelly, J. W. Pope and others.

**Forest—Cotton Compress.**—It is proposed to organize company with \$30,000 capital stock to erect cotton compress. R. B. Webb of Minden, La., is interested.

**Greenwood—Cottonseed-oil Mill.**—Buckeye Cotton Oil Co., John R. O'Brien, manager, states there is no truth in the report recently mentioned that improvements will be made to plant.

**Hattiesburg—Water-works, Sewerage System, Street-paving, etc.**—City has completed arrangements for extending water-works, constructing sewerage system and paving streets, for which \$300,000 in bonds was previously reported voted, and bids for the work will be received until April 10; C. W. Rich, mayor.\*

**Laurel—Planing Mill.**—W. M. Carter and associates will establish planing mill.

#### MISSOURI.

**Butler—Coal Mines.**—Incorporated: Bates County Coal & Mining Co., with \$5500 capital stock, by F. J. Tygard, A. R. McCulloh, J. S. Francisco and others.

**Fulton—Steel Bridges.**—Reports state that J. C. Herring of Jefferson City, Mo., is preparing plans for two steel bridges to be constructed across Town creek at a cost of \$8500; to be plate girders, about 60-foot span with 18-foot roadway.

**Carthage—Mining.**—Chapel Mining Co. has been incorporated with \$150,000 capital stock by J. P. Newell, S. F. B. Morse, H. W. Blair and others.

**Johnstown—Lead and Zinc Mines.**—Reports state that Robert Black and associates have begun the development of lead and zinc properties near Johnstown.

**Johnstown—Zinc and Lead Mines.**—American Zinc, Lead & Smelting Co. is reported as sinking two more shafts 9x12 feet on its property.

**Kansas City—Lumber Company.**—W. C. Bowman Lumber Co. has been incorporated with \$206,000 capital stock by W. C. Bowman, S. H. Bowman and others.

**Kirksville—Gas Plant.**—Kirksville Gas, Heat & Electric Co., recently reported as having let contract to build gas plant, will erect building of brick, 45x55x24 feet, and 25,000-cubic-foot steel holder; daily capacity 100,000 cubic feet. About \$35,000 will be expended in the erection of plant and construction of mains; E. B. Dodge, engineer in charge.

**Springfield—Creamery.**—Chartered: Ozark Creamery, Ice & Produce Co., with \$20,000 capital stock, by T. W. Arnold, W. S. Shafer and others.

**Springfield—Street Improvements.**—City will vote April 5 on \$20,000 bond issue for street improvements. Address City Engineer.

**St. Charles—Sewerage System.**—City has voted affirmatively the proposed \$80,000 bond issue for constructing sewer system. Address The Mayor.

**St. Joseph—Shirt Factory.**—R. L. McDonald & Co. will erect two-story building, 48x112 feet, of concrete, and equip for manufacturing shirts. About \$15,000 will be invested. Machinery has been purchased. This enterprise was mentioned recently under Maryville, Mo.

**Versailles—Coal Mines.**—Missouri Cannel Coal Co. has been organized with \$400,000 capital stock for the development of a large tract of coal land which it has acquired; incorporators, James Applewhite, W. W. Fariss, J. C. Ottinger, all of Memphis, Tenn., and associates.

#### NORTH CAROLINA.

**Charlotte—Electric-power Plant.**—Charlotte Consolidated Construction Co., which is making extensive improvements to plant at a cost of about \$300,000, has let contract for the necessary machinery to include two engines of 800 horse-power each, switchboards, generators, transformers, producer gas plant for producing gas in its crude form, etc. A tank with a capacity of 300,000 cubic feet of gas will be erected, for which contract has also been let. It is proposed to generate electricity by means of gas, and the improvements when completed will double the present capacity. E. D. Latta is president.

**Clinton—Water-works.**—A correspondent states that a system of water-works is needed; population about 1500. Information can probably be obtained by addressing the Town Clerk.

**Greensboro—Plaster Factory, etc.**—Guilford Plaster Co. has amended charter changing name to the Guilford Plaster & Cement Co. and increasing capital stock from \$10,000 to \$20,000.

**High Point—Silk Mill.**—It is stated that Stehlil & Co. of Lancaster, Pa., and 105 Green street, New York, have awarded contract to W. C. Stepp for the erection of modern building to be equipped with machinery for silk throwing.

**Jackson—Lumber Company.**—Chartered: Sylvia Lumber & Manufacturing Co., with \$15,000 capital stock, by E. L. McKee, J. C. Harris and others.

**Lake—Contracting and Engineering Company.**—Sturm & Dillard Company, reported incorporated recently under Guyandotte, W. Va., will act as general contractors and engineers. L. E. Sturm of Columbus, Ohio, is president; Chas. Silliman of Huntington, W. Va., vice-president and secretary-treasurer, and John L. Dillard of Lake, general manager.

**Lexington—Desk Factory.**—It is reported that a \$40,000 company is being organized for the establishment of desk factory, and Thos. Williams of New Jersey is promoting the enterprise. Mr. Williams can be addressed care of the Board of Trade.

**Lumberton—Cotton Mill.**—R. D. Caldwell and associates, reported last week as proposing a cotton mill, have obtained \$100,000 subscriptions and will organize and incorporate as the Dredston Cotton Mills with an authorized capital stock of \$300,000. An equipment of not less than 5000 or more than 12,000 spindles is planned. H. B. Jennings is chairman of subscription committee.

**Mitchell County—Mineral and Timber Lands.**

Reports state that the Bryan Lumber Co. of Bristol, Va.-Tenn., has purchased 3500 acres of timber and mineral lands in Mitchell county for development purposes. It is stated that arrangements will be made at once for the erection of saw-mill, and it is estimated the tract will yield 15,000,000 feet.

**Morganton—Bottling Works.**—Morganton Commission & Bottling Co. has been incorporated with an authorized capital stock of \$20,000 by J. W. Mull, W. W. McCall and others. A two-story building, 50x75 feet, will be erected.

**Newbern—Lumber Booms.**—Newbern Boom & Towing Co. has been incorporated with an authorized capital stock of \$50,000 by Clyde Ely, H. C. Turner and R. F. Broadus.

**Ore Hill—Saw-mill.**—Spencer-Lane Company has been incorporated with \$10,000 capital stock to operate saw-mill with a daily capacity of 20,000 to 30,000 feet; John N. Lane, president, and Geo. E. Spencer, secretary-treasurer.\*

**Roxboro—Cotton Mill.**—J. A. Long proposes organizing company to build cotton mill.

**Saluda—Insulator-pin and Lath Factory.**—W. C. Ward will establish plant for the manufacture of insulator pins (locust) and laths.\*

**Statesville—Mirror Factory.**—O. W. Slone Glass Co. has been incorporated with an authorized capital stock of \$50,000 by O. W. Slone and others to manufacture mirrors and deal in window glass. A two-story building, 40x150 feet, will be erected. About \$10,000 will be invested. Mr. Slone was previously mentioned as to establish glass factory.

**Swannanoa—Saw-mill.**—Mt. Mitchell Lumber Co., recently reported incorporated with \$10,000 capital stock, will erect mill building, 48x48 feet, and sheds, 36x360 feet; daily capacity 40,000 feet of lumber. Machinery has been purchased; John Morrow, vice-president and general manager.

**Tarboro—Agricultural Implements.**—Chartered: Dunbar Company, with \$100,000 capital stock, by George Howard, G. A. Holderness and others.

**Washington—Cold-storage Plant.**—Crystal Ice Co. has secured site on which it is stated a cold-storage plant will be erected.

**Wilmington—Bag and Overall Factory.**—Willard Bag & Manufacturing Co. will erect three-story building, 50x225 feet, of sand-hime bricks on site recently purchased and equip for the manufacture of burlap bags and overalls. An equipment of some 250 machines will be installed, all of them driven by induction motors of the latest pattern geared directly to the operating shafting in units of about 50 machines; annual capacity 6,000,000 bags and 50,000 dozen overalls. About \$25,000 will be invested in equipment. The company has a capital stock of \$50,000; E. Payson Willard, secretary and general manager. (This enterprise was referred to last week.)

#### SOUTH CAROLINA.

**Belton—Cotton-webbing Mill.**—E. B. Rice, Jr., offices at Anderson, S. C., will organize the Belton Webbing Co. with capital stock of \$50,000 to build mill for manufacturing cotton webbing, tapes, etc. Company will install 2000 shuttles and dyeing plant in connection with weave shed.

**Jonesville—Cotton Mill.**—Jonesville Manufacturing Co. has decided to increase capital stock from \$175,000 to \$350,000, a proposition recently reported contemplated. It will erect additional building, 100x200 feet, of brick, and install 10,000 spindles and 300 looms, etc.; J. E. Sirrine of Greenville, S. C., engineer in charge of plans, specifications, etc.

**North Augusta—Brick Works.**—Jackson Press Brick Co. has been incorporated with \$25,000 capital stock. W. E. Jackson is president; J. S. Phelan, vice-president, and G. T. Jackson, secretary-treasurer.

**Spartanburg—Street-paving.**—Southern Bitulithic Co., Nashville, Tenn., has received contract at \$1.75 a square yard for paving with bituminous macadam 20,000 to 25,000 yards of streets, recently reported. Grading with vitrified brick in street-car tracks is included.

#### TENNESSEE.

**Bristol—Planing Mill.**—J. A. Wilkinson, Commonwealth avenue, contemplates rebuilding planing mill and resaw recently reported burned. It is proposed to build on a larger plan.

**Clarksville—Flour Mill.**—Forbes Manufacturing Co., Hopkinsville, Ky., has contract at \$50,000 for the construction of flour mill for the Dunlop Milling Co., recently mentioned; building to be of brick and concrete and have a daily capacity of 1200 barrels of flour.

**Frankfort—Timber Development.**—Reports state that C. Q. Murphy and J. E. Rich have purchased a tract of timber land in Morgan county and will arrange at once for its development.



**Indian Mound—Telephone System.**—A company has been organized with T. W. Seay, president; W. H. Green, vice-president; Dr. C. N. Keats, secretary, and A. H. Seay, treasurer, to construct telephone system.

**Isabella—Sulphuric-acid Plant.**—It is reported that the Tennessee Copper Co. is considering the establishment of a sulphuric-acid plant at a cost of \$1,250,000. J. H. Sussman of New York, N. Y., is treasurer.

**Knoxville—Foundry.**—Wm. J. Oliver Manufacturing Co. has let contract to H. T. Blanc for remodeling building adjoining plant for foundry purposes. Contract has also been let by the same firm to Garland & Weaver for the erection of two buildings 50x150 feet.

**Knoxville—Coal Company.**—Incorporated: Bituminous Coal Co., with \$10,000 capital stock, by J. W. Hatt, J. J. Kelley, S. A. Lewis and others.

**Lauderdale County—Timber Development.**—Ferguson & Palmer Company, Paducah, Ky., have purchased 5026 acres of timber land in Lauderdale county which will be developed; equipment not needed.

**Memphis—Concrete-block Factory.**—It is reported that Koehler Bros. & Franklin contemplate establishing \$30,000 plant for the manufacture of concrete blocks.

**Memphis—Grain Elevator.**—Memphis Public Elevator Co. has been incorporated with \$150,000 capital stock by H. G. Fleming, L. B. McFarland, J. W. Canada, B. G. Sargent and others to erect a 1,000-bushel elevator.

**Memphis—Land Improvement.**—Vandalla Heights Land Co. has been organized with \$50,000 capital stock. C. L. Townes is president; Emil Nathan, vice-president; Charles E. Speer, secretary and general manager, and W. E. Graves, treasurer.

**Memphis—Drug Factory.**—Douglass Medicine Co. has been incorporated with \$25,000 capital stock by John P. Douglass, H. G. Griffin, C. T. McCraw and associates.

**Memphis—Skewer Factory.**—Memphis Skewer Co. is the title of company recently reported incorporated with \$30,000 capital stock to establish skewer factory. A building 50x100 feet will be erected. About \$15,000 will be invested.

**Memphis—Saw-mill.**—Frederick B. Smith, president of the Wolverine Manufacturing Co. and the Cadillac Cabinet Co., both of Detroit, Mich., has secured site on which to locate plant for cutting up for use and supplying stock to the two plants mentioned above. The plant will be operated as the Wolverine Manufacturing Co., and George Blessed of Detroit, Mich., will be manager.

**Nashville—Harness Factory.**—Chartered: Henderson-Allen Company, with \$10,000 capital stock, by W. W. Darden, J. A. Henderson, Darden Allen and others.

**Nashville—Woodenware Factory.**—Chartered: Friddle, Stephens & Co., with \$100,000 capital stock, to manufacture various articles of woodenware, such as brooms, mops, etc. Contract has been let for the erection of factory building and warehouse in West Nashville. J. A. Friddle is president; A. H. Griffin, secretary-treasurer, and Ben R. Stephen, manager.

**Nashville—Street Improvements.**—It is stated that bids will shortly be asked for grading and macadamizing streets in the suburbs, for which \$135,000 is available. Address W. W. Southgate, city engineer.

**Pulaski—Cotton and Grain Company.**—Chartered: Pulaski Cotton & Grain Co., with \$10,000 capital stock, by T. E. Daly, W. L. Abernathy, J. W. Crutcher and others.

#### TEXAS.

**Bay City—Rice Company.**—V. O. Ford, C. E. Eldman and T. J. Poole have incorporated the Bay City Rice Co. with \$100,000 capital stock.

**Beaumont—Forge Works.**—Incorporated: Parker Forge Works, with \$2000 capital stock, by B. G. Neville, F. A. Seeger and others.

**Beaumont—Saw-mill.**—Chartered: Landry Lumber Co., with \$40,000 capital stock. The company will continue the operation of saw-mill with a daily capacity of 20,000 feet which it owns. Emmett Landry is president; John H. Brooks, vice-president, and E. C. Ogden, secretary-treasurer.

**Brownsville—Electric-light and Power Plant.**—It is reported that F. J. Combe and S. C. Tucker will install electric-light and power plant.

**Cisco—Ice and Cold-storage Plant.**—Cisco Ice Co., G. W. Terrell, manager, will establish eight-ton ice and cold-storage plant. Two buildings, one 30x30 and one 30x20 feet, will be erected. About \$6000 will be invested.

**Colorado—Drug Company.**—Colorado Drug Co. has been incorporated with \$6000 capital stock by Gus Bertner, J. M. Thomas and others.

**Corpus Christi—Hardware.**—Corpus Christi Hardware Co. has been incorporated with \$15,000 capital stock. Edwin Sweeney is president; Charles H. Flato, vice-president; W. J. Smith, secretary, and W. G. Blake, treasurer.

**Dallas—Amusement Company.**—Cliff Park & Theater Co. has been incorporated with \$75,000 capital stock by John A. Ewton, C. A. Mangold and others.

**Dallas—Scenic Railway.**—D. C. McCord has contract at \$30,000 for building scenic railway at the fair grounds for Burns, Hill & Cameron.

**El Paso—Hardware Company.**—Chartered: Laurie Hardware Co., with \$25,000 capital stock, by James H. Laurie, W. K. Marr and Carl Rubin.

**El Paso—Fertilizer Factory.**—Chartered: El Paso Guano & Fertilizer Co., with \$10,000 capital stock, by T. W. Teague, J. B. McGee and others.

**El Paso—Street-paving.**—Warren Bitulthite Co., Boston, Mass., has contract at \$203,000 for paving the business section with asphalt.

**Fort Worth—Gin Machinery.**—Chartered: Fort Worth Gin Machinery Co., with \$50,000 capital stock, by L. P. Robertson, Robert G. Johnson and George Mulkey.

**Fort Worth—Syrup and Extract Factory.**—Jersey Cream Co. has incorporated with \$15,000 capital stock to manufacture cream syrups, extracts, ciders, etc.; incorporators, B. H. McDonald, W. G. Newby and others.

**Galveston—Creosoting Plant.**—Galveston Creosoting Co. has been incorporated with \$35,000 capital stock by F. A. Langbehn, G. A. Weber of Galveston and C. R. Cummings of Houston, Texas.

**Gonzales—Cotton Gin.**—Frank Vrazel, it is reported, will erect cotton gin.

**Haskell—Cotton Mill.**—J. E. Poole contemplates establishing mill, the capital stock to be from \$75,000 to \$100,000. No details have been decided, and information as to size of buildings, number of spindles and looms, etc., is wanted.\*

**Haskell—Lumber Company.**—C. D. Long, W. B. Brazelton, C. L. Johnson and others have incorporated the Haskell Lumber Co. with \$30,000 capital stock.

**Houston—Gas and Oil Wells.**—Chartered: Houston Gas & Oil Co., with \$150,000 capital stock. J. R. Sharp is president; Howard H. Hughes, vice-president and general manager, and George Herman, secretary-treasurer.

**Houston—Oil and Gas Wells.**—Carroll Oil & Gas Co. has been incorporated with \$100,000 capital stock by R. E. Burt, Otis McGaffey, Jr., and associates.

**Kyle—Cotton Gin.**—Farmers' Gin Co. has been incorporated with \$3000 capital stock by Henry Nieman, Otto Graef and G. Kuehne.

**Libby—Lumber Company.**—J. J. Bowden, A. W. Meador and E. G. Bracken have incorporated the Bowden-Meador Lumber Co. with \$5000 capital stock.

**Llano—Iron Mines.**—There is no truth in the report mentioned in recent issue that John A. Penton of Cleveland, Ohio, is investigating iron-ore mines near Llano with a view to developing same.

**Mallard—Telephone System.**—J. D. Parr, J. H. Goughly and others have incorporated the Mallard Telephone Co. with \$6600 capital stock.

**McDowell—Saw-mill.**—Benjamin Worley and associates contemplate erecting saw-mill.\*

**Midland—Hardware and Furniture.**—Midland Hardware & Furniture Co. has been incorporated with \$30,000 capital stock by Chas. L. Sinclair and J. A. Johnson.

**Midlothian—Agricultural Implements.**—Chartered: Cowart Stalk Breaker Co., with \$15,000 capital stock, by B. F. Hawkins, T. J. Dorsett and associates, to manufacture cultivators, stalk breakers, etc.

**Munday—Development Company.**—J. M. Usher, D. J. Enright and others have incorporated the Munday Development Co. with \$20,000 capital stock.

**Rusk—Iron Foundry.**—Reports state that William Wiess, W. T. Tyrrell of Beaumont, Texas, and associates will remodel, improve and operate the iron foundry owned by the State and which has been idle for some time.

**Waco—Cotton Gin.**—Chartered: Glinners' Cotton Co., with \$10,000 capital stock, by C. M. Seley, W. W. Seley and others.

**Waxahachie—Water-works Improvements.**—City will vote April 30 on the issuance of \$10,000 of bonds for extending water-works. Address The Mayor.

**Weatherford—Knitting Mill.**—Weatherford Cotton Mills will install mill for knitting men's and women's fine hosiery, investing about \$10,000. Machinery has not been purchased.\*

#### VIRGINIA.

**Alexandria—Lumber and Mining, etc.**—Burdette Land, Lumber & Mining Co. has been incorporated with an authorized capital stock of \$100,000. J. S. Flannery of Alexandria is president, and William Hitz, Washington, D. C., secretary-treasurer.

**Allisonia—Iron Mines.**—Central Iron & Steel Co., Harrisburg, Pa., is reported as investigating the Hibernia and Wissler mines near Allisonia, and if iron ore is found in sufficient quantities to begin development work and erect a large washer at the Hibernia mines.

**Berkley—Marine Railway.**—W. E. Thomas & Co., operating marine railway, are erecting a two-story addition, 30x100 feet, which will be equipped with planers, resaws, band saws and other improved equipment for building and rebuilding boats.

**Boykins—Knitting Mill.**—It is proposed to organize a company with capital stock of \$20,000 to establish knitting mill. W. W. White of Boykins and Joseph W. Leafe of Winchester, Va., are interested.

**Bristol (P. O. Bristol, Tenn.)—Mining and Development Company.**—Chartered: Federal Mining & Development Co., with \$50,000 capital stock. H. E. Graves is president; J. C. Byars, vice-president, and T. W. Aldrich, secretary-treasurer.

**Chatham—Ice Plant.**—Wm. Minor and J. H. Piggs will establish two-ton ice plant, mentioned last week.\*

**Claremont—Box Shooks and Cratings.**—Claremont Lumber & Box Co. has been organized with C. C. Hamer, president; U. E. White, vice-president, and C. C. Shelton, secretary, to manufacture box shooks and cratings. It has purchased the plant of the Rich & Hillard Company and will operate same. A tract of timber land containing 3700 acres, on which there is a large deposit of marl, has also been purchased at \$22,000, and arrangements will be made for its development.

**Claremont—Stave and Shingle Mill.**—It is reported that the Rich & Hillard Company will erect stave and shingle mill.

**Franklin—Street-paving.**—W. H. Barnes has secured contract at \$1.20 per square yard for paving the principal streets.

**Franklin—Sewerage System.**—Reports state that Thomas A. Barry & Co., Richmond, Va., have been awarded contract for constructing sewerage system previously mentioned.

**Hampton—Standpipe.**—Peninsular Pure Water Co. has purchased site on which to erect proposed standpipe; to be 18 feet in diameter, 150 feet high, hold more than 1,000,000 gallons of water and cost \$15,000; J. M. Cummings, president.

**Independence—Electric-light, Power Plant and Flour Mill.**—Independence Electric & Milling Co. has completed arrangements for the construction of proposed 50-barrel roller mill and electric-light and power plant; power to be obtained at Peach Bottom Falls, a distance of two miles. Contract for the installation of system has been let to A. M. Stone.

**Louisna—Woodworking Plant.**—Louisna Manufacturing Co. has been organized by James E. Porter, O. P. Binns, Jr., and John F. Sommers to manufacture laths, shuttles and hardwood novelties. Size and character of buildings has not been decided. George Butler is engineer in charge, and George Leigh & Bro., architects. Messrs. Porter and Binns were mentioned last week as to establish woodworking plant.\*

**Manchester—Filtration Plant.**—Roberts Manufacturing Co., Inc., Philadelphia, Pa., has contract at about \$20,000 for the construction of filtration plant recently mentioned.

**Marion—Woodworking Plant.**—Marion Lumber & Contracting Co., recently reported organized to manufacture sash, doors, blinds and inside finishing materials, has secured site on which to erect factory, and construction work will begin at once; capital stock \$10,000; George W. Richardson, president; J. Ellis Dickinson, secretary, and M. C. Morris, general manager.

**Meherrin—Timber Development.**—L. L. Salter Lumber Co. of Pittsburg, Pa., and associates have purchased a tract of timber land from the Blackstone Manufacturing Co., Blackstone, Va., which will probably be developed.

**Narrows—Veneering Plant.**—B. T. Johnson, Jr., of Narrows, R. H. Enoch of Pittsburg, Pa., and associates are arranging for the establishment of a veneering plant; building to be two stories, 80x500 feet.

**Norfolk—Contracting Company.**—Chartered: Reinschmidt-Haenni Contracting Co., with an authorized capital stock of \$50,000. L. J. Haenni of St. Louis, Mo., is president and treasurer, and W. F. Driver of Norfolk, secretary-treasurer.

**Petersburg—Furniture Factory, etc.**—Char-

tered: Harlow, Bailey & Co., with an authorized capital stock of \$10,000. S. P. Jones of Barton Heights, Va., is president; George P. Harlow, secretary, and N. O. Bailey, treasurer, both of Petersburg.

**Portsmouth—Lumber Company.**—Incorporated: Portsmouth Retail Lumber Corporation, with C. H. Bull of Norfolk, Va., president, and H. L. Watts of Portsmouth, secretary-treasurer; authorized capital stock \$50,000.

**Richmond—Tooth-powder Factory.**—It is reported that L. H. Grunder of Chicago, Ill., will establish plant for the manufacture of tooth powder. It is stated that a building has been secured.

**Richmond.**—Incorporated: Virginia Clay & Material Co., with \$125,000 capital stock, by Edwin R. Cochran of Richmond, George G. Matchett and M. E. Hamer, both of Philadelphia, Pa.

**Richmond—Street-paving.**—Thomas A. Barry & Co. are lowest bidders for street-paving.

**Richmond—Telephone System.**—It is reported that the Southern Bell Telephone Co. has begun the construction of its proposed line between Richmond and Danville, Va., via Keysville, Charlotte C. H., and Chase City, Va. It is estimated that about \$100,000 will be expended. Address Superintendent Montague.

**Richlands—Zinc Mines.**—H. Fugate Company is considering the development of zinc properties in Virginia.

**Roanoke—Land Improvement.**—Chartered: Trenton Improvement Corporation, with an authorized capital stock of \$15,000. D. C. Talbott is president, and R. W. Winborne, secretary-treasurer.

**Roanoke—Lumber Company.**—Wright-Adams Lumber Co. has been incorporated with an authorized capital stock of \$25,000. W. S. Adams is president, and R. J. Wright, secretary-treasurer.

**Roanoke—Timber and Mineral Lands.**—Harwood Lumber & Mining Co. has incorporated with an authorized capital stock of \$50,000 to deal in timber and mineral lands. R. H. Angell is president; C. L. Bush, treasurer, both of Roanoke, and B. F. Johnson, Jr., of Narrows, Va., secretary.

**Suffolk—Land Improvement.**—Suffolk Realty Corporation has been incorporated with an authorized capital stock of \$50,000. J. B. Pinner is president; Lem P. Jordan, secretary, and J. T. Withers, treasurer.

**Suffolk—Machine Works.**—Benthall Machine Co. has incorporated with \$10,000 capital stock to build peanut pickers. Building has been secured and machinery purchased. J. T. Benthall is president; C. A. Shoop, secretary, and N. R. Withers, treasurer.

**Tazewell—Furniture Factory.**—It is proposed to establish a furniture factory, and Lake & Hankins are promoting the enterprise.

**West Point—Ice Plant.**—Chartered: West Point Ice Co., with J. S. Montgomery, president, and A. S. Gresham, secretary-treasurer, both of Richmond, Va.; authorized capital stock \$30,000. Two buildings will be erected, one 100x30 feet and one 15x30 feet; capacity 15 tons of ice in 24 hours.

**Wise—Coal and Coke Company.**—Incorporated: Yellow Creek Coal & Coke Co., with an authorized capital stock of \$15,000; G. W. Kilgore, president, and R. L. Kilgore, secretary-treasurer.

#### WEST VIRGINIA.

**Anderson—Lumber Company.**—Chartered: Commonwealth Lumber Co., with \$150,000 capital stock, by J. H. West and C. A. Beckley of Warren, Pa.; E. L. Brown of Corry, Pa.; H. W. Walters of Irvine, Pa., and others.

**Beckley—Water-works.**—Town will vote April 20 on proposed \$25,000 bond issue for constructing water-works. Address Town Clerk.

**Benwood—Street-paving.**—Higgins & Hirsch of Moundsville, W. Va., have contract for street-paving.

**Braxton County—Coal Mines.**—Elk Valley Coal Co. has been organized with Lloyd Johnson, president; J. D. Frisbee, vice-president; C. D. Patterson, secretary, and F. A. Kall, treasurer, all of Connellsville, Pa., to develop 6000 acres of coal land in Braxton and Clay counties.

**Charleston—Oil and Gas Wells.**—Coal River Oil & Gas Co. has been incorporated with \$100,000 capital stock by E. T. Crawford, W. L. Ashby, J. D. Woodroe and others.

**Charles Town—Water-works.**—Charles Town Water Co. has been incorporated with \$50,000 capital stock by R. G. Cox, E. W. Cox of Harrisburg, Pa.; A. Grant Rinchwine, H. L. King and F. D. Townsend of Mechanicsburg, Pa.

**Elkins—Planing Mill.**—Elkins Planing Mill Co. has been organized with \$50,000 capital stock.

Hinton—Coal and Land Company.—J. A. Barker, James H. Miller, H. Ewart, George O. Quesenberry and associates have incorporated the Summers Coal & Land Co. with \$25,000 capital stock.

Hinton—Lumber Company.—T. H. Lilly, James H. Miller, H. Ewart and associates have incorporated the Lilly Lumber Co. with \$100,000 capital stock.

Littleton—Coal Mines.—It is reported that C. F. Kefover, C. J. McCormick, John T. Robinson, John D. Carr, B. B. Howell and associates of Merittstown, Pa., have purchased 5200 acres of coal land at \$200,000.

Moundsville—Stamping and Enameling Plant.—United States Stamping Co. will erect a one-story brick addition 72x240 feet to plant. No machinery will be required. J. M. Sanders is secretary and manager.

Parkersburg—Planing Mill.—Incorporated: J. M. Senseman Planing Mill Co., with \$25,000 capital stock, by J. M. Senseman, J. P. Senseman, J. J. Shore and others.

Ronceverte—Lumber Plant.—Ronceverte Lumber Co. has been incorporated with \$25,000 capital stock to manufacture lumber; main building 61x30 feet, dry kiln 20x1200 feet, lumber shed 40x100 feet will be erected; daily capacity 20,000 feet. About \$8000 will be invested; Jose I. Henderson, president; O. A. Price, secretary-treasurer, and A. E. Creigh, general manager.\*

Wheeling.—John Freidel, W. E. Weiss, Louis P. Frobe and associates have incorporated the Panhandle Improvement Co. with \$100,000 capital stock.

#### INDIAN TERRITORY.

Council Hill—Grain Elevator.—Central Mill & Elevator Co., reported incorporated last week, will erect a 10,000-bushel elevator with corn-cracker and cornmeal outfit, for which plans and specifications are desired. Trevor Faulkner is engineer in charge.\*

Davis—Land Improvement.—Incorporated: Davis Land & Improvement Co., with \$150,000 capital stock, to buy land along the Washita river valley, build farmhouses and locate farmers. It is proposed to erect a three-story brick office building in Davis. O. T. Simon of Fort Worth, Texas, is president; J. F. McFawks, vice-president and treasurer, and Edward Summers, secretary.

Forum—Coal Mines.—D. S. Redican will organize company for the development of coal properties mentioned last week.

Quapaw—Lead and Zinc Mines.—Quapaw Lead Mining Co., previously reported incorporated under Oklahoma City, O. T., will mine lead and zinc, and a 100-ton concentrating plant will be erected; main office, Suite 18, 88 La Salle street, Chicago, Ill.

South McAlester—Coal Mines.—Dow Coal Co. has been incorporated with \$40,000 capital stock by Andrew Dow of Houston, Texas; W. E. Beatty of Dallas, Texas, and others to develop coal properties near South McAlester.

#### OKLAHOMA TERRITORY.

Amorita—Lumber Company.—Chartered: C. C. Vaughan Lumber Co., with \$50,000 capital stock, by A. E. Smith and associates.

Anadarko—Water-power.—Washita Valley Interurban Electric Railroad, W. T. Croslen of Shreveport, La., vice-president, is reported as to develop the water-power of the Pennington, Blue and Washita rivers in the Chickasaw Indian Nation, establishing water-power stations along the line of its proposed road from Shreveport, La., to Anadarko, O. T. It is estimated that about 50,000 horse-power will be obtained.

Custer—Oil and Development Company.—Custer City Oil & Development Co. has been incorporated with \$200,000 capital stock by L. D. Haskell, J. D. Storm, Alexander McKenny and others.

Davenport—Concrete-block Factory.—Davenport Concrete Co., reported incorporated last week with \$5000 capital stock, will manufacture concrete blocks having a daily capacity of 1000 blocks. Two buildings, one 30x32 feet and one 24x30 feet, will be erected.

Drum City (not a postoffice)—Townsite.—Drum City Townsite Co. has been incorporated with \$6000 capital stock by B. J. Lambert of Driftwood, O. T.; J. George Springer and A. Schupbach of Kiowa, Kan., to establish townsite to be known as Drum City.

Granite—Telephone System.—Farmers & Merchants' Telephone Co. has been incorporated with \$5000 capital stock by O. S. Laswell, J. A. Rice, John G. Willis and others.

Hennessey—Telephone System.—Chartered: Oak View Rural Telephone Co., by S. A. Clark, Rhodes Clements and others.

Mangum—Publishing.—Incorporated: Star Publishing Co., with \$15,000 capital stock, by J. K. Murphy, S. E. Echols and R. C. Echols.

Oklahoma City—Silk Mills.—American China

Silk Co., reported incorporated last week, has elected H. J. Dannenbaum of Houston, Texas, president; J. H. Stolper of St. Louis, Mo., vice-president, and A. D. Engelsman, general manager. This company proposes to establish plants for decorticating and degumming china silk (ramie) and eventually to build mills for manufacturing finished product. It will use machinery of a special pattern which it will construct; authorized capital stock \$1,000,000; offices of general manager in the Oklahoma Building. Postoffice box is 656.

Oklahoma City—Excelsior, Mattress, Tent and Awning Factory.—Bates Manufacturing Co., recently reported incorporated, will establish plant for the manufacture of excelsior, mattresses, tents and awnings. Electricity will be used as motive power; capital stock \$9000; W. D. Cline, general manager.\*

Oklahoma City—Cotton Mill.—The Indian Farmers' Union plans to build a cotton mill.

Oklahoma City—Mining.—Incorporated: Utah Mining & Development Co., with \$1,000,000 capital stock, by M. S. Fite, J. H. Woods, A. C. Woods and associates.

Oklahoma City—Supplies.—Southwestern Material Supply Co., with \$15,000 capital stock, by W. M. Rice of Oklahoma City, J. A. Mayberry and A. J. Norman of Sayre, O. T. Shawnee—Copper Mines.—Oklahoma Copper Co. has been incorporated with \$2,000,000 capital stock by S. T. Pierson, F. B. Reed and W. M. Longmire.

Union City (P. O. Union)—Bridge.—Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, Ill., is reported as completing arrangements for the construction of proposed steel bridge across the South Canadian river near Union City; to have a steel superstructure resting on five concrete abutments. It is estimated that about \$1,000,000 will be expended.

Wanette—Water-works.—Town has engaged O'Neil Engineering Co., Dallas, Texas, as engineer in charge of construction of water-works for which a \$20,000 bond issue will be voted April 24; James T. Hutchinson, town clerk.

Waynoka—Grain and Coal Company.—L. J. Johnston, J. A. Green, E. W. Shoemaker and associates have incorporated the Waynoka Grain & Coal Co. with \$5000 capital stock.

#### BURNED.

Baltimore, Md.—Factory of Maryland Oiled Clothing Co., 2497-2411 Eastern avenue; loss about \$10,000.

Birmingham, Ala.—Birmingham Macaroni Co.'s plant damaged.

Columbia, Tenn.—The plant of the Maury Democrat, Messrs. Lynch and E. C. Perry, proprietors, loss \$10,000; George W. Nichols' store building, loss \$3500.

Gulfport, Miss.—Shums Bottling Works; building owned by Gulfport Land & Lumber Co.

Nortonville, Ky.—Nortonville Coal Co.'s power-house and hoisting plant; loss \$6000.

#### BUILDING NOTES.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Anniston, Ala.—Store Building, etc.—John Shelnett will erect a three-story brick building, 53x135 feet, at a cost of \$10,000, to be occupied by the Shelnett Mercantile Co. A one-story warehouse, 55x30 feet, will also be built in the rear.\*

Asheville, N. C.—Store Building.—W. H. Wilson has contract to erect building for R. E. Kuhler after plans by F. E. Davis; four stories, 30x42 feet; brick with plate-glass front; electric fixtures; cost \$5500.

Atlanta, Ga.—Storage Building, etc.—Ford & Johnson Company, 170-174 Marietta street, is erecting two three-story buildings, 290x50 feet and 70x50 feet, at a cost of \$30,000, each to be used as sample and storage room and as finishing department for chairs.

Atlanta, Ga.—School Building.—Board of Education, Luther Z. Rosser, president, will open bids April 9 for the erection of a brick school building. Plans and specifications on file at office of Haralson Bleckley, architect. Rooms 618-619 Empire Building, Atlanta, Ga. Certified check for \$500 must accompany each bid. Usual rights reserved.

Atlanta, Ga.—Store Building.—Morgan & Dillon are preparing plans for four-story building to be erected by M. Rich & Bros. Company.

Ashville, Ala.—Bank Building.—Ashville Savings Bank, recently organized with James

L. Herring, president, will erect a brick building.

Augusta, Ga.—Office Building.—T. O. Brown & Sons have contract to rebuild the Leonard Building (Leonard Phinizy, owner), previously reported burned. Charles E. Choate was recently mentioned as preparing plans for same.

Baltimore, Md.—School.—The municipal Board of Awards has rejected all bids submitted for the construction of school building previously reported to be erected at Garrison, Main and Orem avenues, as they exceeded appropriation for the work. Revised plans will probably be made by Edward D. Preston, inspector of buildings, City Hall.

Baltimore, Md.—Dwelling.—Charles R. Barnett of the Hopkins-Barnett Company, Calvert Building, Fayette and St. Paul streets, will erect 2½-story frame dwelling at Roland Park; Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street. Gladfelter & Chambers, 2072 Woodberry avenue, and Roland Park Company, Roland Park, are estimating on construction.

Baltimore, Md.—Dwelling.—B. W. & E. Minor, builders, 30 Clay street, will erect 2½-story frame dwelling at Chestnut avenue and 12th street to cost about \$5000; W. L. Minor, architect, 30 Clay street.

Baltimore, Md.—Store and Apartment-house.—Wm. Hanson Hodges, architect, Wilson Building, 301 North Charles street, has awarded contract to R. H. Frazier & Son, 230 St. Paul street, for the remodeling of three-story building at 226 West Monument street into a store and apartment-house. Electric wiring and fixtures, sanitary plumbing and heating system will be installed.

Baltimore, Md.—Warehouse.—John J. Hurst and W. B. Hurst, Calvert Building, Fayette and St. Paul streets, have purchased lots at 611 and 613 Water street, and will erect warehouse on the site, which is 25x66 feet.

Baltimore, Md.—Warehouse.—Harry Klaff of H. Klaff & Co., 1136 Stiles street, has awarded contract to Harris Siegel, builder, 307 South Eden street, for the construction of warehouse at 204 Central avenue; four stories, 25x59 feet; brick with stone trimmings; slag roof; cost about \$6000; W. A. Foreman, architect, 1002 East 20th street.

Baltimore, Md.—Florists' Exchange.—Referring to Florists' Exchange Building to be erected at southwest corner St. Paul and Franklin streets by the Florists' Exchange, 505 North Eutaw street, the following contractors are estimating on construction: Henry Smith & Sons Company, 116 South Register street; Morrow Bros., 212 Clay street; John Cowan, 106 West Madison street; Frederick Decker & Son, 1209 East Biddle street; Wm. H. Porter & Son, 505 East Forrest street, and C. C. Watts, 113 Hamilton street; two stories, 30x100 feet; brick with stone trimmings; steel beams; electric wiring and fixtures; sanitary plumbing; heating system; J. Edward Laferty, architect, 11 East Pleasant street.

Baltimore, Md.—Institution.—The Home for the Aged of the Methodist Episcopal Church, Fulton avenue and Lanvale street, will remodel its present building and erect a three-story addition to cost about \$10,000. Thomas L. Jones & Son, 410 West Saratoga street; Rufus Bennett & Son, 26 Franklin Building, Baltimore and North streets; Harry Brown, 109 Clay street, and B. F. Bennett, 123 South Howard street, are estimating on construction.

Baltimore, Md.—Office Building.—The Realty Corporation, Frank M. Widner, president, 8 East Lexington street, representing George Q. Horwitz and Felix Isman, both of Philadelphia, Pa., has purchased lots at southwest corner St. Paul and Lexington streets and will erect office building on the site, which is 69.6x112.5 feet.

Baltimore, Md.—Garage.—The Mar-Del Mobile Co., George I. Miller, general manager, Charles street and Mt. Royal avenue, who recently erected three-story garage 75x150 feet at Charles and Mt. Royal avenue, will erect an addition to be three stories 75x150 feet; brick with stone trimmings; reinforced concrete construction. Twelve, and possibly 24 additional bowling alleys will be installed. Wells Bros. Company, 410 Union Trust Building, Charles and Fayette streets, will construct the building; Beecher, Friz & Gregg, 11 East Pleasant street, architects.

Baltimore, Md.—Amusement-park Buildings. United Railways & Electric Co., Continental Building, Baltimore and Calvert streets, will erect carrousel and addition to dancing pavilion at Gwynn Oak Park; carrousel, one story, 78.6x78.6 feet, frame construction; addition to dancing pavilion, one story, 25x50 feet, frame construction. Henry S. Rippel, 7 Clay street; Richmond H. Ford & Co., Equitable Building, Fayette and Calvert streets; John Cowan, 106 West Madison street; J. & S. H. Lamb, 253 West Preston street, and

Charles L. Stockhausen, National Marine Bank Building, Gay and Water streets, are estimating on construction. Bids to be in April 4; Simonson & Pietsch, architects, American Building, Baltimore and South streets.

Baltimore, Md.—Store and Office Buildings. The Edwin F. Abell estate, Sun Building, Calvert and Saratoga streets, has awarded contract to Thomas L. Jones & Son, 410 West Saratoga street, for the construction of two store and office buildings at 202 and 204 North Calvert street; two stories, 15x36 and 15x67 feet; brick with stone trimmings; tin roofs; electric wiring and fixtures; sanitary plumbing; heating system; cost about \$8000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Office Building.—The Kosciusko Permanent Loan and Savings Association, 1627 Eastern avenue, has awarded contract to Lorenz Schoenlein, 2217 East Baltimore street, for the construction of office building at 1635 Eastern avenue; two stories, 17.3x59 feet; marble exterior; tin roof; sanitary plumbing; heating system; cost about \$8000.

Baltimore, Md.—Church.—The Church of the Redeemer, Joseph K. Snyder, pastor, 1506 North Broadway, has commissioned Henry J. Tinley, architect, Hoffman Building, 11 East Lexington street, to prepare plans and specifications for one-story and basement stone addition, 35x68.4 feet, to its church building at Bethel and Oliver streets. Heating system will probably be installed.

Baltimore, Md.—Telephone Exchange.—The Chesapeake & Potomac Telephone Co., Light near Baltimore street, has awarded contract to Morrow Bros., 212 Clay street, for the construction of an additional story on its present exchange at Madison and Robert streets and the erection of a three-story addition in the rear; buildings will be of fireproof construction; J. E. Sperry, architect, Calvert Building, Fayette and St. Paul streets.

Baltimore, Md.—Church.—The McCall Real Estate & Improvement Co., 712 Union Trust Building, Charles and Fayette streets, has been awarded contract for the construction of one-story and basement brick and stone church, 42x30 feet, for the Enon Baptist Church, to cost about \$16,000.

Baltimore, Md.—Dwellings.—Henry E. Cook, 537 East Monument street, has purchased lot on North Calvert street between 27th and 28th streets and will erect 25 three-story brick dwellings on the site, which is about 400x154 feet.

Baltimore, Md.—Warehouse.—Pierre C. Dugan & Nephew, 16 East Lexington street, as agents for Misses Bogue, have commissioned Owens & Sisco, architects, Continental Building, Baltimore and Calvert streets, to prepare plans and specifications for four-story brick warehouse, 44x35 feet, to be erected at southeast corner Gay and Water streets.

Baltimore, Md.—Warehouse.—Alexander Yearley & Son, Builders' Exchange Building, 2 East Lexington street, as agents, have commissioned J. Appleton Wilson, architect, Law Building, Courtland near Lexington street, to prepare plans and specifications for four-story brick warehouse to be erected at 404 South Charles street.

Baltimore, Md.—Warehouse.—A. H. Callow of Wm. H. Whiting & Co., Pratt near South street, will erect four-story reinforced-concrete warehouse on Holliday near Centre street. The building will have a frontage of 250 feet. Baltimore Ferro-Concrete Co., Calvert Building, Fayette and St. Paul streets, and C. L. Stockhausen, National Marine Bank Building, Gay and Water streets, are estimating on construction.

Baltimore, Md.—Dwellings.—Wm. J. Clendenin, 1417 Thames street, will erect 16 two-story brick dwellings on Hoffman street near Broadway to cost about \$10,000.

Baltimore, Md.—Apartment-house.—Isaac Raffel, 728 Lennox street, has commissioned Louis Levi, architect, American Building, Baltimore and South streets, to prepare plans and specifications for alterations and addition to three-story dwelling at Bolton and Lennox streets, converting it into an apartment-house.

Baltimore, Md.—Dwellings.—J. Charles Linthicum, 230 St. Paul street, will erect 10 two-story brick dwellings on Baltimore near Canton street to cost about \$15,000.

Baton Rouge, La.—Store Building.—Farranbacher Dry Goods Co. will erect a three-story stone and pressed-brick building.

Bay St. Louis, Miss.—Bank and Office Building.—Bids will be asked in about 30 days on the erection of building for Merchants' Bank, for which Southron R. Duval, Bay St. Louis and 606 Common street, New Orleans, La., was previously reported as preparing plans; two stories, 34x58 feet; pressed brick and



stone; terra-cotta trimmings; tile roof; marble wainscoting; tiled floors; sanitary plumbing; electric fixtures; fireproof vault; cost \$8000.

Bay St. Louis, Miss.—Store Building.—Bay Mercantile Co. is having plans prepared by Southron R. Duval, Bay St. Louis and 606 Common street, New Orleans, La., for a \$6000 store building.

Bay St. Louis, Miss.—Theater.—Southron R. Duval, Bay St. Louis and 606 Common street, New Orleans, La., is preparing plans for a brick and stone theater to be erected by Charles A. Moreau at a cost of \$15,000.

Bells, Texas.—School Building.—Town will vote on a \$10,000 bond issue for the erection of brick school building. Address Town Clerk.

Benwood, W. Va.—Hotel.—J. E. Marple of McMechen, W. Va., has contract to erect frame hotel building for Joseph Murphy.

Birmingham, Ala.—Apartment-house.—Margaret Apartments Co., reported incorporated last week, will erect apartment-house, for which T. C. Thompson & Bros. was recently reported as having contract; mill construction, 133x116 feet; steam heat; electric and gas fixtures; cost \$75,000; W. C. Weston, architect.

Birmingham, Ala.—Parish-house.—Wheelock, Joy & Wheelock are preparing plans for parish-house mentioned last week to be erected by St. Andrew's Church, and bids for the construction will be opened about May 15; building to be 45x70 feet, probably of reinforced concrete, equipped with hot-water-heating plant, electric lights, and cost between \$8000 and \$12,000; Raimundo de Ovies, 1113 South 11th street, rector and trustee of building fund.

Bluefield, W. Va.—Store and Office Building.—Saul Greenspon will open bids April 12 for the erection of a three-story brick store and office building according to plans and specifications which may be obtained at office of Mr. Greenspon; also at office of Holmboe & Lafferty, architects. Usual rights reserved.

Bristol, Tenn.—Dwelling.—Henri Horlot has completed plans for T. C. Adams' proposed residence.

Brownwood, Texas.—Depot.—Plans are being prepared for depot to be erected by the Gulf, Colorado & Santa Fe Railway; C. F. W. Felt, chief engineer, Galveston, Texas.

Cedar-town, Ga.—Store Building.—Cedar-town Company will receive bids for the erection of two-story brick store building of ordinary construction to cost \$8000 to \$10,000; to be equipped with electric fixtures and have plate-glass show windows; Bruce, Everett & Hayes, Atlanta, Ga., architects.\*

Centerville, Miss.—Bank Building.—Commercial Bank is reported to erect brick building.

Charleston, S. C.—Wharf.—Bids will be received until April 14 at the bureau of yards and docks, Navy Department, Washington, D. C., for constructing a pile and timber wharf at the navy yard, Charleston. Plans and specifications can be seen at the bureau or will be furnished by the commandant of the navy yard, Charleston; Mordecai T. Endicott, chief of bureau.

Chattanooga, Tenn.—Office Building.—Jas. Trimby has contract to erect two stories to the Temple Court Building, W. B. Swaney, manager; cost \$20,000.

Columbia, Miss.—Store Building.—Webb & Smith will erect store building 20x90 feet.

Columbia, Miss.—Store Building.—G. T. Hallas & Co. have contract to erect brick building for Dr. J. R. Berry.

Columbia, S. C.—Bank Building.—Shand & LaFaye, architects, 1328 Main street, are receiving bids for erection of a three-story and basement bank building of fireproof construction; first story of granite, upper stories of brick and terra-cotta. Plans are on file and bids will be opened by the 15th or 20th of April.

Columbia, S. C.—Cotton Warehouses.—The Standard Warehouse Co. has authorized extensions of its cotton warehouses at Anderson, Greenwood and Columbia, and will probably build warehouses in other cities throughout the State.

Columbia, S. C.—Theater.—City Clerk will receive bids until April 16 for altering the Columbia Theater. Instructions to bidders, together with specifications, plans, form of contract and bond, can be obtained on application to the city clerk; also to J. B. McElvaine & Sons, architects, 192 Broadway, New York. Certified check for \$500 must accompany each bid. Usual rights reserved; C. D. Holing, chairman; Edw. N. Chisholm, Jr., engineer.

Dallas, Texas.—Sanitarium.—Incorporated: Gill-Well Sanitarium Co., with \$50,000 capital stock, by J. G. Mills, J. D. Aldredge, George R. Ennis and J. E. Jones. Dr. J. G. Mills

of Marlin, Texas, was previously reported as having purchased property on which was located the Gill mineral well and to build a three-story sanitarium, 150x50 feet, with bath-house 75x150 feet.

Dallas, Texas.—Clubhouse.—Plans and specifications by Lang & Winchell have been adopted for \$50,000 building previously reported to be erected by the Columbian Club; Simon Linz, president.

Dalton, Ga.—Church.—Plans have been completed for the erection of proposed \$10,000 edifice for the Methodist congregation. Address The Pastor.

Durant, I. T.—Bank and Office Building.—Citizens' Loan & Realty Co., recently organized with \$100,000 capital stock, will erect two-story brick building.

Ellicott City, Md.—College Buildings.—Construction work has begun on buildings mentioned recently to be built at St. Charles College after plans by Baldwin & Pennington, 311 North Charles street, Baltimore, Md. Two buildings will be erected, one 60x100 feet and one 54x105 feet; of ordinary construction. Electric and gas fixtures and steam heat will be installed; cost \$15,000.

Elm Grove, W. Va.—School Building.—Elcott & Winchell, Clarksburg, W. Va., have contract at \$30,940 for the erection of school building, recently reported; Charles D. McCarty, Wheeling, W. Va., architect.

Fayetteville, N. C.—Building.—Mrs. Anna K. Kyle will erect three-story building, 44x32 feet, of fireproof construction, at a cost of \$12,500, replacing structure recently burned. Hot-water-heating plant, gas and electric fixtures will be installed. Architect has not been selected.

Fort Smith, Ark.—Hotel.—Chartered: Fort Smith Hotel Co., with \$500,000 capital stock, by W. R. Abbott, George Sengel, T. W. M. Boone and others.

Fort Worth, Texas.—Hospital.—John Bardon has contract to erect three-story addition to St. Joseph's Infirmary; cost \$76,000.

Frederick, O. T.—Bank Building.—Bids will be opened April 10 for the erection of two-story building, 25x90 feet, by W. E. Weathers for the Frederick National Bank, recently mentioned; cost \$9750. Electric fixtures will be installed; F. H. Grubb, Lawton, O. T., architect.

Gadsden, Ala.—Dwelling.—Frederick Moesser, Birmingham, Ala., has contract to erect residence for S. S. Caldwell after plans by A. D. Simpson; two stories, brick veneered with slate roof; cost \$5000. Gas and electric fixtures and furnace will be installed.

Glasgow, Ky.—Dormitory.—Board of Trustees of Liberty College will arrange for the issuance of \$20,000 in bonds for the erection of dormitory.

Greensboro, N. C.—Church.—Winningham & Fries have contract to erect edifice for the First Baptist Church, for which Foulk & Son were previously reported as preparing plans.

Greenville, S. C.—Store and Office Building.—James R. Lawrence is preparing plans for a two-story brick store and office building to be erected by Mrs. Carrie V. Canbie, Selma, Ala.

Griffin, Ga.—Cotton Warehouse.—W. B. Griffin, J. E. Drewry and associates will organize stock company for the erection of a fireproof cotton warehouse, 210x160 feet, to have three compartments each, with a capacity of 1000 bales. A sprinkler system will be installed.

Havre de Grace, Md.—Masonic Temple.—Bids will be opened April 10 for three-story lodge building 55x50 feet of brick to be erected by Susquehanna Lodge, A. F. and A. M.; mill construction; equipped with electric fixtures and cost \$15,000. J. B. Crawford, 114 South Broadway, Baltimore, Md., prepared the plans. J. W. Bauer is chairman of building committee.

Henderson, N. C.—Store Building.—H. C. Linthicum of Durham, N. C., is preparing plans for a store building to be erected by Hawkins & Fitzgerald.

Hillhouse, Miss.—Dwelling.—J. D. Smith is having plans prepared by F. H. Ely, Memphis, Tenn., for the erection of proposed \$15,000 residence.

Houston, Texas.—Store and Office Building.—Max Dienstag will erect a store and office building.

Independence, Va.—Courthouse.—E. C. Fulton, chairman board of supervisors Grayson county, Virginia, will receive bids until April 26 for the erection of courthouse. Plans and specifications will be on file after April 6 at the county clerk's office, Independence, Va., or may be obtained from the county clerk on deposit of \$25. Certified check for \$500, payable to board of county supervisors, must accompany each bid. Usual rights reserved.

Kershaw, S. C.—Bank Building.—Bank of

Kershaw will erect a two-story building, 50x100 feet, of brick with plate-glass front.

Knoxville, Tenn.—Warehouse.—S. B. Luttrell, J. Allen Smith, W. S. Shields, J. Y. Johnston and others are organizing company for the erection of grain warehouse.

Lake Charles, La.—Depots.—It is reported that the St. Louis, Watkins & Gulf Railway is having plans prepared for a brick freight-house 40x160 feet, with unloading platform. It is also stated that a passenger depot will also be built as soon as site is secured. H. B. Kane is general manager.

La Plata, Md.—Church.—Vestry of Port Tobacco parish will arrange for the rebuilding of Christ Protestant Episcopal Church, recently burned. It is proposed to erect a stone structure, 79x58 feet, with metal roof, at a cost of \$20,000.\*

Lawton, O. T.—Hotel.—J. F. Wasson has purchased site on which to erect a three-story brick hotel.

Little Rock, Ark.—Telephone Exchange.—Southwestern Telephone & Telegraph Co. has engaged C. L. Thompson to prepare plans for proposed exchange, two stories, 60x90 feet; pressed brick, fireproof construction.

Little Rock, Ark.—School Buildings.—Gibb & Sanders have been engaged to prepare plans for two school buildings.

Louisville, Ky.—Dwelling.—Dr. Edward Speldel will erect a \$15,000 residence.

Louisville, Ky.—Warehouse.—Belknap Hardware & Manufacturing Co. is receiving bids for the erection of warehouse, 175x185 feet, of reinforced concrete after plans by McDonald & Dodd. Low-pressure steam-heating plant, electric fixtures and electric elevators of 8000 pounds capacity will be installed.\*

Louisville, Ky.—Office Building.—It is reported Peter Lee Atherton, representing Chicago parties, has purchased site on which to erect a 26-story office building; first 10 stories to be constructed of marble and granite and the remaining stories of reinforced concrete. Six elevators and a moving stairway will be installed. It is estimated that about \$1,250,000 will be invested.

Marion, Va.—Bank, Office and Store Building.—Bids will be opened April 20 for the erection of a bank, office and store building according to plans and specifications by Frank P. Milburn, Columbia, S. C. For further information address W. L. Lincoln, Marion, Va.

Marion, Va.—Dwelling.—Joseph C. Campbell, president United States Lumber Co., has purchased site on which to erect residence.

Marion, Va.—School Building.—Bids will be opened April 20 for the erection of a school building after plans by Frank P. Milburn, Columbia, S. C. For further information address W. L. Lincoln, Marion, Va.

Memphis, Tenn.—Cathedral Nave.—Contract has been let for addition (nave) to St. Mary's Cathedral; to be of stone, 55x150 feet, have a seating capacity of 800 and cost \$30,000.

Memphis, Tenn.—Church.—Institute Cumberland Presbyterian Church, previously reported as having plans prepared by John Galsford, 470 Randolph Building, for the erection of edifice, will make the Sunday-school part six stories as quarters for young men; ordinary construction; steam heat; electric fixtures; electric passenger elevator; cost \$60,000. The structure will probably be built in sections.

Memphis, Tenn.—Dwelling.—R. F. Cresson has contract to erect residence for E. L. Menager after plans by Walk C. Jones; stone veneer; slate roof; hot-water-heating plant; electric fixtures; cost \$8500.

Memphis, Tenn.—Flats Building.—Horn Bros. are having plans prepared by L. M. Weathers & Co. for two-story pressed-brick flat building, 83x125 feet; steam heat; freight elevator; speaking-tubes; call bells, etc.; cost \$40,000.

Memphis, Tenn.—Apartment-house.—Carney & Corey are preparing plans for a four-story apartment-house, 50x148 feet, of pressed brick with stone and terra-cotta trimmings, to be erected on Court street. Two passenger and one freight elevator will be installed.

Memphis, Tenn.—Building.—Sisters of St. Francis of St. Joseph Hospital have purchased site, 85x72 feet, adjoining hospital on which to erect building.

Memphis, Tenn.—Warehouse and Stable.—Koehler Bros. & Franklin will erect a warehouse and stable of concrete blocks at a cost of \$10,000.

Memphis, Tenn.—School Building.—Bids will be opened April 10 for rebuilding school in the Thirtieth district of Shelby county, recently burned; two stories, 40x60 feet, and cost \$3000. John Elam, Whitehaven, Tenn., prepared the plans. Dr. N. F. Raines, R. F. D. No. 1, is chairman of building committee.

Memphis, Tenn.—Theaters, etc.—Chartered:

Dixie Amusement Co., with \$30,000 capital stock, by A. B. Morrison, H. A. Bilger, Sol Dan, Ed Ryan and J. J. Quigley, to establish a circuit of theaters, summer parks, etc.

Memphis, Tenn.—Dwellings.—Charles R. Miller will erect two stone-veneer residences to cost \$14,000.

Memphis, Tenn.—Store Buildings.—R. F. Cresson has contract to erect two store buildings for R. B. Maury after plans by Jones & Furbinger; each to be two stories, 60x70 feet, of pressed brick with gravel roof.

Memphis, Tenn.—Flats Building.—L. M. Weathers & Co. are preparing plans for flats building to be erected by Mrs. E. Goodman; two stories, brick with slate roof and concrete foundation; cost \$10,000.

Memphis, Tenn.—Dwelling.—I. Ottenheimer is having plans prepared for a two-story residence to cost \$6000.

Memphis, Tenn.—Building.—Bids are being received for the erection of building for the Business Men's Club after plans by Shaw & Pfeil.

Memphis, Tenn.—Store Building.—D. D. Thomas & Sons have contract to erect two-story brick store building for Davitt & Moriarty; cost \$8000. Chighizola, Hanker & Cairns were previously reported as preparing plans.

Memphis, Tenn.—Car Barn.—Memphis Street Car Co. is arranging for the erection of car barn previously mentioned; to be 300x400 feet, 35 feet high, of steel construction with pressed-brick exterior, concrete foundation, terra-cotta roof and granitoid floors; capacity 200 cars. A turntable and automatic switches will be installed.

Middlesboro, Ky.—School Building.—Barber & Klutz, Knoxville, Tenn., are preparing plans for school building, for which \$12,000 bond issue was recently reported voted; two stories, 85x140 feet; brick and stone; ordinary construction; steam or hot-air heating plant; electric lights; H. H. Sprague, secretary board of education.\*

Mobile, Ala.—Theater.—C. T. Owen has contract at \$36,000 for the erection of the Lyric Theater.

Montgomery, Ala.—Capitol Building.—Thos. M. Owen, secretary Alabama Capitol Building Commission, will receive bids until April 16 for the erection of a brick stuccoed addition or wing to the State Capitol building. Plans and specifications may be had from Frank Lockwood, First National Bank Building, Montgomery. Usual rights reserved.

Mt. Airy, N. C.—Store Building.—F. L. Smith Hardware Co., recently reported incorporated, will erect a three-story brick and stone building 20x120 feet.\*

Nashville, Tenn.—Buildings.—Norman Kirkman has let contract to W. N. McDonald, representing the Granitoid Construction Co., for the exterior walls of two buildings, replacing structures recently burned; one building to be four stories and contain 19,000 square feet of floor space, and one to be three stories and have 20,000 square feet. J. A. Williams was previously mentioned as preparing plans.

Nashville, Tenn.—Warehouse.—Phillips, Webb & Co. will erect \$15,000 warehouse, replacing structure recently burned.

New Hebron, Miss.—School Building.—Town is reported as contemplating issuing \$6000 of bonds for erecting school building. Address Town Clerk.

New Orleans, La.—Building.—Stone Bros., Hennen Building, are preparing plans for a five-story brick building, 30x130 feet, to be erected by L. Fellman at a cost of \$25,000. Electric lights, one passenger and one freight elevator, each 7x8 feet, will be installed.

New Orleans, La.—Pythian Temple.—Knights of Pythias are having plans prepared for proposed six-story building to cost \$250,000.

Norfolk, Va.—Building.—Parke L. Poindexter desires bids on the erection of modern temporary building, three or four stories, 150x160 feet.

Norfolk, Va.—Store Building.—Breeze & Mitchell are preparing plans for a six-story building, 150x120 feet, to be erected by the Hecht-Hirschler Company at a cost of \$75,000.

Norfolk, Va.—Church.—Vance Hebrand is preparing plans for edifice to be erected by the Episcopal Church of the Ascension, Park Place; white brick, 35x72 feet.

Norfolk, Va.—Railway-terminal Facilities.—Dispatches state that the Atlantic Coast Terminal Co., which was previously organized for the purpose of providing extensive freight and passenger terminals for steam and electric railways, will soon receive plans and specifications from its engineers for the proposed improvements. It is understood that these plans will be submitted for consideration by the railway presidents who are expected to meet in Norfolk in the near future.

to consider locating a union passenger depot. Reports state that the Terminal Company anticipates expending \$5,000,000 for its improvements. J. W. Perry is president; W. W. Moss, vice-president.

Oklahoma City, O. T.—Hotel.—It is reported that Joseph Huckins, Sr., and associates have purchased the Lee Hotel and will make improvements at a cost of \$150,000.

Old Point Comfort (P. O. Fortress Monroe), Va.—Hotel.—John B. Kimberly is reported as to erect an addition to Sherwood Inn.

Orange, Texas.—School Building.—City will vote April 17 on the issuance of bonds for erection of school building. Address The Mayor.

Paducah, Ky.—Hotel Improvements.—Palmer Hotel Co. has been incorporated with \$150,000 capital stock to operate the Palmer Hotel, and plans and specifications are being prepared by William Brainerd for remodeling same.

Pine Beach, Va.—Skating Rink.—Bartlett-Drew Company has contract to build skating rink for the Pine Beach Amusement Co.; two stories, 200x100 feet, and have a floor of rock maple.

Raleigh, N. C.—Building.—John Brown and others will erect a three-story building 210x120 feet.

Rayne, Ia.—Depot.—It is reported that the Morgan's Louisiana & Texas Railroad (Southern Pacific system) will erect a brick depot 43x90 feet; E. B. Cushing, general superintendent, New Orleans, La.

Richmond, Va.—Association Building.—Wilson, Harrison & Richards, Philadelphia, Pa., are completing plans for proposed \$40,000 building for the Railroad Young Men's Christian Association.

Richmond, Va.—Warehouse.—John T. Wilson has contract to erect warehouse for the Putney Shoe Co. after plans by Carpenter & Blair of New York, N. Y.; brick, stone, concrete and steel construction; electric wiring; heating plant.

Rome, Ga.—Jail Building.—Bids will be opened April 23 for the erection of jail building for Floyd county after plans by L. A. Bellonby; to be three stories, 35x57 feet; stone and brick; fireproof; cost \$11,000. Steam heat and electric lights will be installed.

Rutherfordton, N. C.—Sanitarium.—Dr. Montgomery H. Biggs, Blockley Hospital, Philadelphia, Pa., and associates are reported to erect \$25,000 sanitarium.

Sanderson, Texas.—Courthouse and Jail.—Plans, specifications and bids will be received until May 16 for the erection of courthouse and jail building for Terrell county to cost about \$23,000; Joe E. Kerr, county judge.

Savannah, Ga.—Church and Parish-house.—John Sutcliffe of Chicago, Ill., is preparing plans for church and parish-house to be erected by St. Paul's congregation.

Savannah, Ga.—Dwelling.—A. A. Artley has contract to erect double residence for H. L. Pierce after plans by H. W. Witcover. A building will be erected in the rear to contain servants' rooms, laundry and automobile garage. About \$40,000 will be invested.

Scottsboro, Ala.—Church.—D. V. Stroop is preparing plans for edifice to be erected by the Baptist congregation, replacing structure recently burned.

Sewell's Point, Va.—Pier.—Jamestown Exposition Co., Norfolk, Va., is arranging for the construction of a marine pier at the exposition. It is proposed to build two piers 200 feet wide, extending into the water 2200 feet, and joined at the end by a bridge span 1200 feet long. A landing will be built all along the enclosed sides of the pier after the manner of a terrace as in the case of dry-docks. Electricity will be used for lighting.

Sewell's Point, Va.—Hotel.—Jamestown Hotel Corporation, Norfolk, Va., will receive bids until April 14 for the erection of hotel on the exposition grounds. Drawings and specifications may be obtained on application to the Associated Architects and Engineers, third floor, New Century Building, Norfolk, Va. A deposit of \$15 will be required for each set of plans and specifications applied for. Certified check for \$3000 must accompany each bid. Usual rights reserved.

Shreveport, La.—Business Building.—Mrs. E. M. Busby will erect a six-story business building of concrete blocks with steel frame.

Sparta, Ga.—Church.—Architect has not been selected to prepare plans for \$15,000 edifice reported last week to be erected by the Methodist Church, South. Address John D. Walker, chairman building committee.

St. Augustine, Fla.—Courthouse.—It is reported that St. Johns county is considering the erection of courthouse. B. Genovar is chairman of county commissioners.

Stevenson, Md.—Dwelling.—Thomas Janney,

It is reported, will erect \$30,000 residence, replacing structure recently burned.

St. Louis, Mo.—Hotel.—Kellerman Contracting Co. has contract to erect 10-story hotel for the Marquette Realty Co.; cost \$366,000.

St. Louis, Mo.—Association Building.—Murch Bros. Construction Co. has contract to erect additional story to the Y. M. C. A. building; cost \$40,000; Tully & Clark, Security Building, architects.

Tarboro, N. C.—Office Building.—The Maccloughfield Company, Henry Clark Bridgers, secretary, will erect a three-story brick and stone office building; construction work to begin July 10.

Teague (P. O. Gilmer), Texas.—Bank Building.—Bank of Teague, recently organized with W. E. Richards, president, has adopted plans for a two-story building.

Thomasville, N. C.—Bank Building.—C. C. Hook of Charlotte, N. C., has completed plans for proposed building for the Bank of Thomasville.

Towson, Md.—Office Building.—Wm. T. Murphy, 908 North Howard street, Baltimore, Md., has contract to erect three-story fireproof office building, 40x45 feet, for Noah E. Offutt after plans by Thos. C. Kennedy, 331 North Charles street, Baltimore, Md.; cost \$17,000. Hot-water-heating plant and electric lights will be installed.

Tupelo, I. T.—Bank Building.—State Bank of Tupelo has let contract for stone building with plate-glass front.

Utica, Miss.—Building.—Currie Bros. have begun the erection of a two-story brick building.

Wadesboro, N. C.—Store Building.—Parsons & Hardison have let contract to the Wadesboro Brick & Lumber Co. for the erection of two-story brick building 40x56 feet.

Washington, D. C.—Apartment-house.—Harry B. Willson, 715 8th street N. W., and Harry Wardman, builder, 717 14th street N. W., will erect apartment-house at 14th and Harvard streets N. W.; four stories, 65x75 feet; brick with stone trimmings; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$60,000; A. H. Beers, architect, 717 14th street N. W. Mr. Wardman will construct the building.

Washington, D. C.—Apartment-house.—Harry B. Willson, 715 8th street N. W., and Harry Wardman, 717 14th street N. W., will erect two apartment-houses at 1409 and 1411 Harvard street N. W.; three stories, 75x75 feet; brick with stone trimmings; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$50,000; A. H. Beers, architect, 717 14th street N. W. Mr. Wardman will construct the buildings.

Washington, D. C.—Car Barn.—Referring to car barn to be erected at 14th and Decatur streets by the Capitol Traction Co., 36th and M streets N. W., the following contractors are estimating on construction: Thompson-Starrett Company, Commercial National Bank Building, 14th and G streets N. W.; Norcross Bros., Colorado Building, 14th and G streets N. W.; George A. Fuller Company, Home Life Building, 15th and G streets N. W.; James L. Parsons, 13½ and Pennsylvania avenue N. W.; Richardson & Burgess, Colorado Building; W. E. Speir Company, 1342 New York avenue N. W.; Brennan Construction Co., 31st and K streets N. W.; Cranford Paving Co., 2620 E street N. W.; Wm. P. Lipscomb & Co., 1405 F street N. W., and Fissell & Wagner, Home Life Building; two stories, 250x600 feet; brick with stone trimmings; reinforced concrete construction; slag roof; electric wiring and fixtures; sanitary plumbing; bids to be in April 16; Wood, Donn & Deming, architects, 808 17th street N. W.

Washington, D. C.—Church.—The Rhode Island Methodist Protestant Church, John M. Gill, pastor, 36 Rhode Island avenue N. W., has awarded contract to W. E. Mooney, Lenman Building, 1425 New York avenue N. W., at his bid of \$16,355, for the construction of church building at 1st street and Rhode Island avenue; one story, 40x80 feet; brick with stone trimmings; slate and tin roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; Harding & Upman, architects, 729 15th street N. W.

Washington, D. C.—Club Building.—The Algonquin Canoe Club, care Spalding & Bro., 709 14th street N. W., and M. A. Tappan, 1339 F street N. W., has commissioned Sherman & Sonneman, architects, 1302 F street N. W., to prepare plans and specifications for three-story club building.

Washington, D. C.—Dwelling.—Howard S. Gott, Grant road N. W., has awarded contract to Frederick Sonneman, 1302 F street N. W., for the construction of three-story brick and stucco dwelling at 2013 12th street

N. W., to cost about \$8000. Hot-water-heating system will be installed; Sherman & Sonneman, architects, 1302 F street N. W.

Washington, D. C.—Dwellings.—Lottie L. Burn has awarded contract to James D. Burn, builder, 1101 E street N. E., for the construction of 10 two-story brick dwellings at 1207-1225 E street N. E., to cost about \$35,000. Hot-air-heating systems will be installed.

Washington, D. C.—Dwellings.—George E. Howard, 714 12th street N. W., has awarded contract to Richard Ough & Son, Friendship Heights, Md., for the construction of four two-story brick dwellings at 3306 Prospect street N. W., and three two-story brick dwellings at 1214-1218 33d street N. W., to cost about \$25,000.

Washington, D. C.—Dwellings.—Harry B. Willson, 715 8th street N. W., and Harry Wardman, builder, 717 14th street N. W., will erect five three-story brick and stone dwellings at 13th and Roanoke streets N. W., to cost about \$25,000. Electric wiring and fixtures, sanitary plumbing and hot-water-heating systems will be installed. Mr. Wardman will construct the buildings.

Washington, D. C.—Dwellings.—Harry Wardman, builder, 717 14th street N. W., will erect nine two-story brick dwellings at 11th and Girard streets N. W., to cost about \$25,000. Hot-water-heating systems will be installed.

Washington, D. C.—Dwellings.—Wright & Hopkins, 802 F street N. W., have awarded contract to J. W. Trumble, builder, 409 South Carolina avenue S. E., for the construction of 11 two-story brick dwellings at 1315-1335 Massachusetts avenue S. E., to cost about \$25,000. Hot-air-heating systems will be installed.

Washington, D. C.—Dwellings.—Frank P. Burke, 1212 I street N. W., has awarded contract to Samuel J. Prescott & Co., 700 13th street N. W., for the construction of three three-story brick and stone dwellings at 318-322 13½ street N. W., to cost about \$15,000. Electric wiring and fixtures, sanitary plumbing and heating systems will be installed; Samuel Turner, architect, 8 L street N. W.

Washington, D. C.—Dwellings.—George W. Blacksten of W. E. Speir Company has awarded contract to W. E. Speir Company, 1342 New York avenue N. W., for the construction of 15 two-story brick and stone dwellings at 122-150 Randolph street N. W., and nine two-story brick and stone dwellings at 123-139 Randolph street N. W., to cost about \$83,000. Hot-water-heating systems will be installed.

Washington, D. C.—Dwellings.—Richard Knight, 1417 G street N. W., has awarded contract to W. H. H. Sorrell, 621 M street S. W., for the construction of seven two-story brick dwellings at 1321-1333 South Carolina avenue to cost about \$13,000.

Washington, D. C.—Dwellings.—Charles H. Guiles, 18th and Jackson streets N. E., has awarded contract to J. H. Lane, builder, 1725 3d street N. E., for the construction of three two-story dwellings at 41-45 Florida avenue and two two-story brick dwellings at 31-36 Quincy Place to cost about \$17,000. Hot-air-heating systems will be installed.

Washington, D. C.—Laboratory.—The Carnegie Institution, Robert S. Woodward, president, Bond Building, 14th street and New York avenue N. W., has commissioned Wood, Donn & Deming, architects, 808 17th street N. W., to prepare plans and specifications for proposed laboratory to be erected on Pierce Mill road near Massachusetts avenue; cost about \$100,000.

Washington, D. C.—Office Building.—Henry A. Willard, 1416 F street N. W., has commissioned Lem W. Norris, architect, 1441 U street N. W., to prepare plans and specifications for seven-story fireproof office building to be erected at 1422 F street N. W.

Washington, D. C.—Office Building.—W. F. Hibbs & Co., 1419 F street N. W., have selected Wood, Donn & Deming, architects, 808 17th street N. W., and Bruce, Price & De Sibour, architects, 1135 Broadway, New York, to prepare separate designs for office building to be erected at 725 and 727 15th street N. W.

Washington, D. C.—Stable.—Mrs. Minnie L. Soper, 337 Monroe street, Anacostia, has awarded contract to Randolph Jennings, Congress Heights, for the construction of two-story stable 35x65 feet to cost about \$6000.

Washington, D. C.—Store Building.—Flora B. Welch will erect store building at 1517 7th street N. W.; two stories, 45x100 feet; brick with stone trimmings; tin roof; cost about \$7000; Arthur M. Poynter, architect, 911 French street N. W.

Washington, D. C.—Store Building.—The United Cigar Stores Co., 941 Pennsylvania avenue N. W., has commissioned Harding & Upman, architects, 729 15th street N. W., to prepare plans and specifications for remodeling store building at 707 15th street N. W. New front, mosaic floors and electric wiring and fixtures will be installed.

Washington, D. C.—Stores and Apartments. Referring to three stores and apartments to be erected on H street between 13th and 14th street N. W. by Lawrence Watson, the following contractors are estimating on construction: W. H. McCreery, L. W. Walker, 418 Colorado Building, 14th and G streets N. W.; Fissell & Wagner, Home Life Building, 15th and G streets N. W., and Osterman & Butler, Colorado Building; three stories, 48x62.2 feet; brick with limestone trimmings; galvanized-iron cornice; tin roof; electric wiring and fixtures; sanitary plumbing; steam-heating systems; bids to be in April 9; Albert M. Schneider, architect, 329 Bond Building, 14th street and New York avenue, N. W.

Washington, D. C.—Warehouse.—John W. Brawner, 1321 F street N. W., has awarded contract to Peter Fresinger, builder, 1 A street N. W., for the construction of warehouse at Le Droit Park; four stories, 51.6x63.9 feet; brick with stone trimmings; slag roof; elevator; cost about \$10,000; Sherman & Sonneman, architects, 1302 F street N. W.

Waynesboro, Ga.—Store Building.—D. Hennington and Edward Fulcher are arranging for erection of store building.

West Palm Beach, Fla.—College Building.—Messrs. Bruce, Everett & Hayes of Atlanta, Ga., will prepare plans and specifications for educational institutional to cost from \$30,000 to \$40,000; dimensions of building proper 154x176 feet; 110-foot tower, constructed of artificial-stone marble-vener block; 14 school-rooms; stage and auditorium with seating capacity of 750; no heating system required; Spanish style of architecture. For information address Guy I. Metcalf, West Palm Beach, Fla.

Wheeling, W. Va.—Building.—John Papulias, 1400 Market street, will receive bids until April 7 for the erection of a three-story brick building in accordance with plans by Giesey & Faris; work to be let separately.

Wilmington, N. C.—Building.—Thad. F. Tyler has contract to erect three-story building, previously reported, for John F. Garrell.

Wilmington, N. C.—Building.—Mrs. Lena Wessell is having plans prepared by H. E. Bonitz for two-story brick building 84x132 feet.

Wilmington, N. C.—Store Building.—C. B. West of Greenville, S. C., has contract to erect three-story brick building 28x100 feet for Sternberger Bros. after plans by Cooper & Davis.

Willis, Texas.—School Building.—Town has voted the proposed \$3000 bond issue for erecting school building. Address Town Clerk.

## RAILROAD CONSTRUCTION.

### Railways.

Aiken, S. C.—Engineers for the proposed extension of the Augusta & Aiken Electric Railway from Aiken to Columbia, S. C., are rapidly completing their work fixing curves and grades. D. G. Shand is chief engineer at Augusta, Ga.

Asheville, N. C.—The Champion Fiber Co. of Canton, near Asheville, proposes to build an electric railway for logging purposes.

Asheville, N. C.—The Southern Railway will, it is reported, build a line from Roseman, N. C., on the Transylvania Railway, to Seneca, S. C., and engineers are about to begin the survey. W. H. Wells is engineer of construction at Washington, D. C.

Augusta, Ga.—The Augusta & Florida Railroad is reported to be surveying for its proposed extension from Keyville to Augusta, 25 miles. Allen W. Jones is president at Midville, Ga.

Baltimore, Md.—The Baltimore Terminal Co., which is the local corporation of the Washington, Baltimore & Annapolis Railway, has been granted franchise in Baltimore. George T. Bishop is president, and J. G. Masterton, secretary, at 801 Maryland Trust Building.

Big Stone Gap, Va.—The Cumberland Traction Co. of Big Stone Gap has been incorporated to build a railroad. W. T. Goodloe is president, and J. S. Wright is secretary and treasurer, both at Big Stone Gap.

Brownsville, Texas.—Reported that E. B. Gore will continue the survey for the Brownsville, Hidalgo & Northern Railroad, J. A. Hinman having resigned.

Calro, Ga.—A committee has been appointed at a mass-meeting in the City Hall to select route for a railroad from Albany, Ga., to Quincy, Fla., about 75 or 100 miles. The mayor may be able to give information. Application will be made for a charter.

Campbell, Mo.—The St. Louis, Kennett & Southern Railway Co. has been incorporated to build a line from Campbell in Dunklin county, Missouri, through Clay county, Arkansas, 30 miles. The incorporators are William D. Laswell, David B. Pankey, Joseph F.



Tatum, Oscar Harrison, Virgil McKay and others.

Charleston, S. C.—The Manufacturers' Record is informed that an extension of franchise has been granted to the Charleston & Summerville Electric Railway Co. for its proposed line in Charleston and from Charleston to Summerville, 22 miles; also that inquiries may be addressed to either George Tupper, secretary and treasurer, at Summerville, S. C., or to St. Julien Grimke, Charleston. The work is to begin within 90 days and to be completed in 18 months.

Charleston, W. Va.—N. C. Van Natta, chief engineer Kanawha & West Virginia Railroad Co., announces that bids will be received until noon on April 25 for construction on a 12-mile extension; profiles and specifications at his office in Charleston.

Charlotte, N. C.—The Southern Power Co. is building considerable railroad in connection with its plans. W. S. Lee, Jr., is second vice-president and chief engineer at Charlotte.

Chattanooga, Tenn.—An officer of the Cincinnati, New Orleans & Texas Pacific Railway informs the Manufacturers' Record in reference to a recent press report that the only improvements on the Chattanooga Belt Line are some contemplated changes required by the construction of the new Chattanooga terminal station.

Dallas, Texas.—The prospectus of the proposed Sherman and Dallas interurban railway says that the line will connect Howe, Van Alstyne, Anna, Melissa, McKinney, Plano and Richardson. Surveys and estimates have been made and arrangements completed to begin work immediately. J. F. Strickland is president of the Texas Traction Co., which is to build the line, and Stone & Webster of Boston are said to be interested. Frank H. Proctor of Boston is also mentioned as concerned in the enterprise.

Dallas, Texas.—An officer of the Missouri, Kansas & Texas Railway, writing to the Manufacturers' Record with reference to a recent press report, says that he has never heard any mention of a plan to build an extension from Wichita Falls through the Texas panhandle.

Danville, Ky.—The Danville & Scottsville Railroad Co. has been incorporated to build a line about 100 miles long from Danville to Scottsville, Ky. The incorporators are John G. Taylor of Chicago, George B. Cooper, Stanford, Ky.; J. S. Murphy, McKinney, Ky.; John Brown, Liberty, Ky.; J. B. Coffey, Columbus, Ky.; J. H. Allen, Somerset, Ky., and John Follette, M. M. Perkins, Ralph Leach and J. F. Allen, all of Cincinnati. Work is to begin immediately.

Darien, Ga.—Mr. H. D. Emerson, vice-president and general manager, writes the Manufacturers' Record confirming the press report that the Darien & Western Railroad Co. has changed its name to the Georgia Coast & Piedmont Railroad Co. It will lease and operate the Reidsville & Southeastern Railroad in addition to its own line.

Dothan, Ala.—W. S. Wilson has the contract for the line of the Atlanta & St. Andrews Bay Railroad from Dothan to Cottondale, Fla., 31 miles, and G. H. Purvis, vice-president, is reported as saying that 14 miles of track have been laid.

Elkhorn City, Ky.—Reported that the South & Western Railway has acquired all rights of way for its proposed line through the breaks of the Big Sandy to make connection with the Chesapeake & Ohio at Elkhorn City; also that work will soon be started on this section of the line. M. J. Caples is chief engineer and general manager at Bristol, Tenn.

Ensley, Ala.—The Ensley Railway Co. has notified the secretary of State that it will extend its line 20 miles northwest to Village creek. A. B. Andrews is president, and R. D. Lankford is secretary. It is a Southern Railway proposition. E. M. Durham is resident engineer at Birmingham, Ala.

Fairmont, W. Va.—The Fairmont & Mannington Traction Co. is pushing work on its line from Fairmont to Mannington, W. Va. Among those interested are J. R. Linn of Fairmont, H. R. Brown of New York, C. R. Tate, civil engineer, of Pittsburgh; G. N. Hosack and H. T. Ward of the Pittsburgh Guarantee & Trust Co.

Franklinton, La.—Frank Greco has the contract to build the branch of the New Orleans Great Northern Railroad along the Bogue Chitto valley via Franklinton to Tylertown, La. J. F. Coleman is chief engineer at New Orleans.

Front Royal, Va.—Mr. Hugh E. Naylor, secretary of the Board of Trade, writes the Manufacturers' Record that the promoters of a proposed electric railway from Front Royal-Riverton through Rappahannock, Madison and Green counties desire to get in

touch with capitalists who would be interested in such a plan; also that Rappahannock county has subscribed \$50,000 and Green county \$15,000 for the road, while Madison county is expected to subscribe \$25,000. S. F. Rhodes is president of the Board of Trade.

Galveston, Texas.—Official.—The Jasper & Eastern Railway (Santa Fe system) will build its proposed branch from Cravens to a point near Oakdale, La., about 28 miles, the grade being six-tenths of 1 per cent. The Grigsby Construction Co. of Dallas, Texas, has the contract, and M. S. Temple is chief engineer at Kirbyville, Texas. A press report says that the Jasper & Eastern now has 30 miles of track laid from Kirbyville, Texas, into Louisiana, and grading is finished for eight miles further, grading being in progress beyond that to Cravens. The contractor is the Lantry-Sharp Contracting Co. of Kansas City.

Gleason, Tenn.—Local capitalists in connection with an Eastern syndicate propose to build an electric railway about 30 miles long from Como via Gleason to Greenfield, Tenn. The mayor may be able to give information.

Greensboro, N. C.—E. J. Justice and associates have been granted a franchise in Greensboro for their proposed electric railway, which is to run to High Point, N. C.

Hammond, La.—C. H. Fisk, chief engineer of the Baton Rouge, Hammond & Eastern Railway, is reported as saying that contracts for 50 miles are to be let immediately on the proposed line from Baton Rouge, La., via Covington, La., and Nicholson and Perkins, Miss., to Merrill, Miss., 167 miles. Grading is under way from Baton Rouge to Hammond.

Irving, Texas.—An officer of the Chicago, Rock Island & Gulf Railway Co. writes the Manufacturers' Record confirming the report that a preliminary survey has been made from Carrollton to Irving to ascertain whether it is feasible to build a line between those points.

Jackson, Miss.—The Birmingham & Mississippi Southern Railway Co. has elected officers as follows: A. H. Longino, president; E. F. Ballard, banker, of Meridian and Waynesboro, third vice-president; H. G. Lea, vice-president of the Hattiesburg Trust & Banking Co., treasurer; Will A. Aaron, lawyer, of Hattiesburg, secretary and assistant to president. Other officers and directors will shortly be elected.

Kansas City, Mo.—M. P. Paret, chief engineer of the Kansas City, Mexico & Orient Railway, is reported as saying that the Union Construction Co. has practically completed all the grading from Emporia, Kan., to Lone Wolf, O. T., 322 miles, part of which—between Wichita, Kan., and Oakwood, O. T., 156 miles—is in operation, while tracklaying is in progress south of Oakwood at Custer City and Clinton, O. T. The Union Construction Co. is contractor for all the grading from Kansas City to Lone Wolf, 436 miles. From Lone Wolf, O. T., to Topolobampo, on the west coast of Mexico, 1224 miles, the International Construction Co. has the contract, and grading is practically completed from Lone Wolf to San Angelo, Texas, 275 miles. Part of this, from Sweetwater, Texas, to Knox City, Texas, 76 miles, is completed and in operation. In Mexico 85 miles of grading are completed—71 miles of which are in operation—from Minaca west; also 55 miles of grading are completed—72 miles of which are in operation—from Topolobampo east. On each of these four sections tracklaying is in progress.

Knoxville, Tenn.—W. J. Oliver & Co. of Knoxville have, it is reported, been given a contract by the Southern Railway for 80 miles of second-track work to cost about \$5,000,000. This includes 40 miles between Knoxville and Morristown, Tenn.; 15 miles between Chattanooga and Ooltewah, Tenn., and 25 miles south of Lynchburg, Va. The firm has just begun work on a contract of 40 miles of second track on the Southern Railway between Greensboro and Spencer, S. C.

Knoxville, Tenn.—President Jas. B. Wright of the proposed Holston River Railway is reported as saying that the distance of its proposed line between Persia, Tenn., and Moccasin Gap, Va., is 45 miles, and that contract for construction will be let within 10 days.

Lake Charles, La.—The Kansas City Southern Railroad has, it is reported, completed a branch from a point near Rockport Junction westward to the sulphur mines.

Livingston, Tenn.—The Overton County Railroad will, it is reported, build about a 50-mile extension from Livingston northward connecting with the Queen & Crescent Route. H. E. Overstreet is president, 712 Marquette

Building, Chicago, and H. E. Speyer is general manager at Livingston, Tenn. Surveys are now being made. R. Crow is chief engineer at Livingston, Tenn.

McComb, Miss.—Munson & Witte of Baton Rouge have the contract to build the extension of the Liberty-White Railroad from McComb to Holmesville. It is proposed also to extend from Holmesville to Columbia, and from Liberty, the other end of the present road, to Natchez, making a total distance of 105 miles. J. T. Burke is chief engineer at McComb.

Maryville, Tenn.—Reported that the Louisville & Nashville Railroad has awarded to Kreis Bros. of Knoxville the contract to build the four-mile branch to Maryville.

Milford, Va.—Reported that the Richmond, Fredericksburg & Potomac Railroad will immediately begin construction of improvements to its yards at Milford. C. W. Haines is chief engineer at Richmond, Va.

Minden, La.—President F. H. Drake of the Minden East & West Railway Co. writes the Manufacturers' Record that about five miles of line has been built from Minden and is being operated to Melrose, La. It is intended to push construction westward to Shreveport as fast as possible. The grade is 1 per cent. The other directors are R. H. Miller, vice-president; W. W. Reeder, secretary and treasurer; T. Crichton and S. G. Webb, all of Minden, La.

Mineral Wells, Texas.—Mr. C. E. Brown, engineer in charge, writes the Manufacturers' Record confirming the report that an extension is proposed from the Weatherford, Mineral Wells & Northwestern Railway. He says the company will probably build 25 or 30 miles from Mineral Wells northwest during the summer.

Mt. Ida, Ark.—Construction is being rapidly pushed on the extension of the Gurdon & Fort Smith Railway between Antoine and Caddo Gap, and it is expected that the line will be completed between those points within two months.

Morgantown, W. Va.—The Morgantown & Kingwood Railroad is reported to have completed 12 miles of line on the extension from Reedsville to Rowlesburg, 31 miles. Grading is under way on the remainder of the route. The grading contractors are Lewis, Gill & Crawford and H. Renick, all of Kingwood, and Talbot Bros. of Rowlesburg. J. K. Monroe is chief engineer at Kingwood.

Nashville, Tenn.—An official of the Illinois Central Railroad, writing from Chicago to the Manufacturers' Record, says there is no truth in the press report that the company is to build an extension from Nashville to Chattanooga, Tenn.

New Orleans, La.—The city council has granted the franchise requested by the New Orleans Terminal Co., L. S. Berg, president, for the use of several streets to build its proposed union station at Canal and Basin streets. Both the Southern Railway and the Frisco system are interested.

Newton, Texas.—The extension of the Orange & Northwestern Railway has been completed to Newton.

Norfolk, Va.—President Edward A. Buell of the Elizabeth River Railroad Co. is reported as saying that the line will be constructed immediately from Berkley, Va., into the Dismal Swamp region. John Selp of Chillicothe, Ohio, is also said to be interested.

Norfolk, Va.—H. Fernstrom, chief engineer of the Tidewater Railway, is reported as saying that track has been laid for 38 miles from Norfolk.

Norfolk, Va.—Official information received by the Manufacturers' Record confirms press reports of consolidation of lumber railroads in the eastern part of North Carolina, including the Norfolk & Southern, the Atlantic & North Carolina, the Virginia & Carolina Coast, the Suffolk & Carolina, the Pamlico, Oriental & Western and the Raleigh & Pamlico Sound railways. The Norfolk & Southern Railroad will retain its name and construct proposed extensions. M. K. King is general manager, and F. L. Nicholson is chief engineer, both at Norfolk, Va.

Oneida, Tenn.—Rodes & McDowell of Knoxville have been given the contract to build 20 miles of line for the Tennessee Railway, extending it up New River.

Pineville, W. Va.—Rights of way are being rapidly secured for the proposed Tug River & Guyan Valley Railroad, which is to run from Clark's Gap via Pineville to Wharfedale, about 65 miles.

Quanah, Texas.—An official of the St. Louis & San Francisco Railroad writes from St. Louis to the Manufacturers' Record saying that there is no truth in the report that the company will build from Quanah to El Paso, Texas.

St. Matthews, S. C.—The Business and Im-

provement League is reported to be advocating a plan to build a railroad from St. Matthews to Creston on the Atlantic Coast Line, seven miles. Edward Wimberly is president and J. A. Merritt is secretary and treasurer.

Tampa, Fla.—The Tampa & Jacksonville Railroad Co. has been organized with the following officers: President, Jas. N. Pidcock; vice-president, A. P. Stuckey; secretary, John P. Hackney; treasurer, Frank M. Simonton. It is said that they will complete the extension of the Gainesville & Gulf Railroad so as to make direct railroad connection from Tampa to Jacksonville. The proposed extension is from Fairfield to Tampa, about 100 miles. President Pidcock is also president of the Georgia Northern Railroad at Moultrie, Ga., and Mr. Stuckey is vice-president, and Mr. Simonton secretary of the Gainesville & Gulf Railway, the former at Ocala and the latter at Tampa, Fla. B. W. Blount of the Peninsula Naval Stores Co. is also said to be interested in the new road.

Tampa, Fla.—President J. M. Barr of the Seaboard Air Line, writing from Norfolk, Va., to the Manufacturers' Record, says that the plans for the development of Grassy Island near Tampa, Fla., have not yet been sufficiently matured for announcement.

Tom's Creek, Va.—Reported that the Virginia Iron, Coal & Coke Co. has let a contract for a three-mile extension of the Virginia & Southwestern Railway from Banner to the Little Tom's Creek mines in the Clinch valley region.

Trinity, Texas.—The Beaumont & Great Northern Railroad is reported to have graded 13 miles southeast from Trinity, and work is progressing to Onalaska, six miles further. Survey is in progress from Onalaska to Livingston, 16 miles. Lamb & Hansen are contractors, and C. A. Noblitt is chief engineer, also at Trinity.

Vicksburg, Miss.—The charter of the Vicksburg & Gulf Railroad, promoted by W. W. Hungerford of Gulfport and others, has been approved.

Vinita, I. T.—An officer of the Missouri Pacific Railway writes from St. Louis to the Manufacturers' Record denying the press report that the company is making surveys near Vinita. He says he has no knowledge of any purchase of the Vinita & Northwestern Railway by his company.

Welch, W. Va.—The Caretta Railway Co., with headquarters at Bristol, Tenn., has been incorporated to build a line in this (McDowell) county along Barrenessee creek; capital \$25,000. The incorporators are George L. Carter, president of the South & Western Railway; B. H. Davis, A. Kyle Morrison, J. Norment Powell and T. F. Davis, all of Bristol.

Wilmington, N. C.—The Seaboard Air Line survey for an extension from East Arcadia near Wilmington to Southport, N. C., about 30 miles, has been finished. W. L. Seddon is chief engineer at Portsmouth, Va.

#### Street Railways.

Baltimore, Md.—The legislature has passed the bill to amend the charter of the Maryland Electric Railway, which, it is said, will enable the United Railways of Baltimore to make some desired extensions.

Birmingham, Ala.—The stockholders of the Birmingham Railway, Light & Power Co. have approved the proposed increase of preferred stock heretofore announced for the purpose of making improvements and extensions. Robert Jemison is president.

Birmingham, Ala.—The Birmingham Railway, Light & Power Co. will, it is reported, build a line to South Avondale, about one mile.

Bristol, Tenn.—Reported that the Bristol Belt Line Railway Co. will shortly begin work on its proposed railway in Bristol, Va. Edwin M. Walker is general manager, and S. M. Vance is superintendent.

Corpus Christi, Texas.—Randolph Robertson is reported as saying that a street-railway company will shortly be organized to build a line in Corpus Christi.

El Paso, Texas.—Reported that the street railway company will make improvements, including extensions, to cost a total of \$250,000.

Grafton, W. Va.—The City Traction Co. has been chartered to build a street railway in Grafton. The incorporators are E. M. Chadwick, William Morgan, W. W. Tapp, Charles P. Durbin and Ira E. Robinson, all of Grafton.

Jackson, Miss.—Construction has begun on the extension of the Jackson street-railway system. About five or six miles will be added to the lines.

Salisbury, N. C.—The Southern Development Co. has decided to extend the Salisbury & Spencer Railway from Chestnut Hill to

Fulton Heights. W. B. Wales is superintendent.

Tuscaloosa, Ala.—A franchise has been granted to Robert Jemison of Birmingham for an electric street railway in Tuscaloosa. Mr. Jemison is president of the Birmingham Railway, Light & Power Co.

Yazoo City, Miss.—The city council proposes to issue \$50,000 of bonds to build an electric railway to be owned by the city. The line will be about three miles long.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted:

Agricultural Implements.—L. H. Hilton, Sylvania, Ga., wants to correspond with manufacturers relative to making a working model of a machine constructed of steel and iron for agricultural purposes; gasoline engine for power to be attached.

Agricultural-Implement Parts.—Swenson Manufacturing Co., Shenandoah, Iowa, wants 20,000 to 30,000 pressed steel flanged wheels, 16 inches diameter, No. 11 gauge; 20,000 to 30,000 concave harrow discs, 16 inches diameter, punched with 1½-inch center holes and three 21-64-inch rivet holes; 10,000 to 15,000 plain white-wood neckyokes, 44 inches long, three-inch center; 20,000 to 40,000 singletrees with stationary malleable clip.

Air Compressor.—New Albany Compress Co., New Albany, Miss., wants an air compressor for lifting water from an artesian well into a 60-foot tower. (Address lately referred to as New Albany, Ind.)

Awning Machinery.—Couch Bros. & J. J. Eagan Company, Atlanta, Ga., want information regarding machinery and appliances for manufacturing awnings.

Blinds.—Randolph-Macon Woman's College, Lynchburg, Va., wants prices on venetian blinds or other substitute for shades.

Blow-pipe System.—Dothan Variety Works & Supply Co., Dothan, Ala., wants blow-pipe system.

Boiler.—A. E. Creigh, general manager Ronceverte Lumber Co., Ronceverte, W. Va., wants a 100-horse-power boiler for 125 pounds working pressure. (See "Engine and Boiler.")

Boiler.—See "Engine and Boiler."

Boilers.—See "Engines and Boilers."

Boiler.—J. M. Russ Lumber Co., J. M. Russ, manager, Collins, Miss., wants a good second-hand boiler, 60"x14" or 16", with plenty flues, suitable for burning sawdust.

Brick Cisterns.—Bids marked "Proposals for Construction" and addressed F. W. Cole, quartermaster, Fort Moultrie, S. C., will be received until April 27 for constructing two brick cisterns. United States reserves usual rights.

Brick Machinery.—Wm. B. Withers, Gulfport, Miss., wants addresses of manufacturers of machinery for making sand-lime brick.

Builders' Materials.—N. S. Fitzhugh, 807 Kanawha street, Charleston, W. Va., wants to represent manufacturers of builders' materials and supplies.

Builders' Supplies.—George H. Dieringer, Lange Building, Wheeling, W. Va., wants catalogues and samples of building supplies.

Building Materials.—Robert P. Nelms, 124 Main street, Jacksonville, Fla., wants cement floor, steel ceiling.

Building Materials.—Central Mill & Elevator Co., Council Hill, I. T., wants building materials.

Building Materials.—Jones & Hopkins Manufacturing Co., 216 North Third avenue, Nashville, Tenn., wants lumber for truss roof and other building material.

Building Materials.—Vestry of Port Tobacco parish, La Plata, Md., wants prices on No. 1 Georgia lumber 6x8 inches and 6x6 inches; flooring and ceiling No. 1 Georgia or Virginia; Virginia freestone; metal shingles, cement and lime.

Building Materials.—Belknap Hardware & Manufacturing Co., Louisville, Ky., wants

bids on concrete work on warehouse 175x185 feet.

Building Materials.—Allen J. Krebs, Birmingham, Ala., wants structural cast-iron and steel, tile floors, marble wainscoting, fireproof metal window and door frames, metal wall furring and metal lath, metal ceilings, Bedford stone, ornamental terracotta.

Building Materials.—Great Northern Amusement & Construction Co., J. E. West, president, Norfolk, Va., will accept prices on burlap and other building material.

Building Materials.—Cedartown Company, Cedartown, Ga., wants estimates on plate-glass show windows.

Building Supplies.—Robert P. Nelms, 124 Main street, Jacksonville, Fla., wants shafting and belting.

Bulkhead.—Sealed proposals addressed to the Board of Awards, Baltimore, Md., will be received until April 25 at the office of Harry F. Hooper, city register, City Hall, for construction of stone and timber bulkhead on South side of Pratt street and extending from Light street to West Falls avenue. Plans and specifications may be obtained from N. H. Hutton, harbor engineer, City Hall.

Cannery Equipment.—W. C. Rogers & Co., Geneva, Ala., wants machinery for canning tomatoes and sweet potatoes.

Carbonic-acid-gas Machinery.—E. P. Verner, 1214 Washington street, Columbia, S. C., wants addresses of manufacturers of apparatus for making liquid carbonic-acid gas.

Castings.—Bids will be received until May 7 at Bureau of Engraving and Printing, Treasury Department, Washington, D. C., for furnishing during the fiscal year beginning July 1, 1906, brass and iron castings. Awards will be made only to established manufacturers or dealers. Blank forms, specifications and further information furnished on application to Wm. M. Meredith, director of bureau. Usual rights reserved.

Cement.—H. T. Lawler Milling & Trading Co., Ltd., Crescent Building, New Orleans, La., wants American Portland cement.

Cloth Cutters.—See "Awning Machinery."

Concrete-block Machinery.—Miracle Pressed Stone Co., 5 West Frederick street, Cumberland, Md., will buy machinery for making cement blocks, tile, pipe, etc.

Concrete-block Machinery.—Jefferson Construction Co., Charles Town, W. Va., wants addresses of manufacturers of concrete-block machinery.

Corn Mill.—Central Mill & Elevator Co., Council Hill, I. T., wants cornmeal mill and chop mill.

Corn Mill.—Earle G. Harrell, Camilla, Ga., wants a complete water mill for grinding corn.

Cotton Mill.—J. E. Poole, Haskell, Texas, wants full information regarding cotton mill; size of building, number of spindles and looms, etc.; capital stock to be from \$75,000 to \$100,000.

Cresosoting Plant.—A. K. Klingman, Keithville, La., wants addresses of manufacturers of machinery and equipment used in creosoting plants.

Dry-kiln Supplies.—A. E. Creigh, general manager Ronceverte Lumber Co., Ronceverte, W. Va., wants 8000 feet one-inch pipe and fittings for dry-kiln.

Electrical Equipment.—J. H. Pigg, Chatham, Va., wants small electric-light machine.

Electrical Equipment.—H. T. Lawler Milling & Trading Co., Ltd., Crescent Building, New Orleans, La., wants electrical equipment.

Electrical Equipment.—Jones & Hopkins Manufacturing Co., 216 North Third avenue, Nashville, Tenn., wants three-phase motors.

Electrical Equipment.—Great Northern Amusement & Construction Co., J. E. West, president, Norfolk, Va., will accept prices on electrical equipment, dynamos, etc.

Electrical Equipment.—Bates Manufacturing Co., W. D. Cline, general manager, Oklahoma City, O. T., wants electrical machinery to operate excelsior factory. (See "Excelsior Machinery.")

Electrical Equipment.—A. E. Creigh, general manager Ronceverte Lumber Co., Ronceverte, W. Va., wants a 75-light machine, belt driven.

Electrical Equipment.—Bids will be received until May 1 at the United States engineer office, Washington Barracks, District of Columbia, for furnishing and installing electric elevator, furnishing and installing lighting fixtures, furnishing materials and labor for terrazzo floors, furnishing labor for brick and stone slab flooring, furnishing material for timber floors, all for building for Army War College. Information on application; John Stephen Sewell, captain, engineers.

Electric-light Plant.—R. Whyte, president St. Lucie Ice Co., Fort Pierce, Fla., wants bids on electric-light plant of 2000 incandescent and 14 arc-lights capacity.

Electric-light Plant.—Bids will be opened May 1 for the construction of electric-light plant for the city of Madisonville, Ky., at a cost of \$25,000 to \$30,000. Address all requests for particulars and specifications to W. C. Morton.

Electric-light Plant.—W. K. Palmer, consulting engineer, 718 Dwight Building, Kansas City, Mo., will receive bids until April 23 for equipment, materials and supplies needed for municipal electric lighting and water-works plant at Grand Island, Neb.

Electric-light Plant.—Dothan Variety Works & Supply Co., Dothan, Ala., wants lighting system for woodworking plant.

Electric Plant.—Matthews & Barnes, Eureka Springs, Ark., want prices on machinery and equipment for electric-light and power plant.

Elevator.—C. L. Reeder, Tulsa, I. T., wants prices and catalogues on electric passenger elevators.

Elevator (Grain).—Central Mill & Elevator Co., Council Hill, I. T., wants plans, prints or specifications for 10,000-bushel elevator.

Elevators.—F. L. Smith Hardware Co., Mt. Airy, N. C., wants prices on elevators.

Engine.—Robert P. Nelms, 124 Main street, Jacksonville, Fla., wants a gas engine.

Engine.—New Albany Compress Co., New Albany, Miss., wants a 12x30 Corliss engine. (Address lately referred to as New Albany, Ind.)

Engine and Boiler.—J. G. Humphrey, Castle, N. C., wants 40-horse-power engine and boiler.

Engine and Boiler.—Central Mill & Elevator Co., Council Hill, I. T., wants 20 to 30-horse-power steam or gasoline engine and boiler.

Engine and Boiler.—Jones & Hopkins Manufacturing Co., 216 North Third avenue, Nashville, Tenn., wants engine and boiler.

Engine and Boiler.—J. H. Pigg, Chatham, Va., wants engine and boiler.

Engine and Boiler.—Benjamin Worley, McDowell, Texas, wants engine and boiler. (See "Saw-mill.")

Engine and Boiler.—Keen Bottling Co., South Pittsburg, Tenn., wants prices on upright boiler and engine, three or four horse-power.

Engine and Boiler.—A. E. Creigh, general manager Ronceverte Lumber Co., Ronceverte, W. Va., wants 80-horse-power engine and 100-horse-power boiler for 125 pounds working pressure.

Engines.—C. Fay Lane, Bertig, Ark., wants several small marine engines (gasoline), 2 to 10 horse-power.

Engines and Boilers.—H. T. Lawler Milling & Trading Co., Ltd., Crescent Building, New Orleans, La., wants engines and boilers.

Excelsior Machinery.—Bates Manufacturing Co., W. D. Cline, general manager, Oklahoma City, O. T., wants complete equipment for excelsior factory. Electricity will be used to operate same.

Feed Mill.—Hobbie & Teague Company, Montgomery, Ala., will probably want to buy feed mill for grinding corn, oats, etc.

Fire Extinguishers.—Wallach Brothers, 57 Gracechurch street, London, E. C., England, wants addresses of manufacturers of fire extinguishers which act by spraying sand on fire. Would want those particularly applicable to fires arising from the ignition of petrol.

Foundry Equipment.—See "Stove Foundry."

Foundry Work.—See "Agricultural-Implement Parts."

Fuller's Earth.—J. N. Bruck, Box 244, Jennings, La., wants fuller's earth, 80 and 120 mesh, free from sulphur, in carload lots.

Furniture Machinery.—Watts Bros. Manufacturing Co., Talladega, Ala., wants band or segment resaw, glue jointer for furniture factory, dovetail machine for drawer work; all second-hand in good condition.

Heating Apparatus.—H. H. Sprague, secretary board of education, Middlesboro, Ky., wants estimates on steam and hot-air-heating plant.

Hoists.—Pate Manufacturing Co., Argyle, Ga., pine and cypress shingle manufacturers, wants hoists.

House-moving Equipment.—Clegg Bros., Mathiston, Miss., want a hand-power machine to move houses.

House-moving Equipment.—J. W. Halmes, Sturgis, Miss., wants tackle for moving houses.

Ice Plant.—Matthews & Barnes, Eureka Springs, Ark., want prices on machinery and equipment for ice plant.

Insulator-pin Machinery.—See "Woodworking Machinery."

Ice Plant.—Rice Bros., Lowell, Ohio, want a second-hand ice plant of about five tons capacity.

Ironwork.—See "Scow-construction Supplies."

Iron-working Machinery.—Marion Iron Works, Marion, S. C., wants a second-hand pulley-molding machine.

Knitting Machinery.—Weatherford Cotton Mills, Weatherford, Texas, wants machinery for \$10,000 mill to knit men and women's fine-grade hosiery.

Lamp-shade Decorations.—R. Tyra, 1113 5th street, Minneapolis, Minn., wants to buy bits of colored glass, split pebbles, etc., for decorating lamp shades in leaded or cement work, and the hardware required for same.

Lath Machinery.—See "Woodworking Machinery."

Laundry Machinery.—A. J. Monroe, Jonesboro, N. C., wants information, prices, etc., on laundry machinery.

Machine Tools.—Robert P. Nelms, 124 Main street, Jacksonville, Fla., wants one lathe, one shaper, one drill press, one forge.

Machine Tools.—Broadus Cotton Mills, Stevenson, Ala., wants one 18-foot by 12-inch engine lathe with the necessary chucks, tools, dogs, etc., and one machine for cutting gears.

Mail Chute.—Chattanooga Iron and Wire Works, Chattanooga, Tenn., wants addresses of manufacturers of mail chutes for office buildings.

Mechanical Equipment.—Bids will be received until April 20 at the office of D. W. Ross, general purchasing officer Isthmian canal commission, Washington, D. C., for locomotive cranes, hydraulic jacks, horizontal boilers, steam traps, feed pumps, feed-water heaters, steel stack, test pumps, steam gauges, machinists' taps, emery-wheel dressers, etc. Blanks and full information (circular No. 304) may be obtained from the office of the general purchasing officer, or the offices of the assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans, La.; also from chief quartermaster, Department of the Lakes, Chicago; depot quartermaster, St. Louis; depot quartermaster, Jeffersonville, Ind.; chief quartermaster, Department of the Gulf, Atlanta, Ga., and the Commercial Club, Mobile, Ala.

Metal Shingles.—J. A. Goodman, Clarksville, Texas, wants prices on metal shingles.

Mill Supplies.—Central Mill & Elevator Co., Council Hill, I. T., wants mill supplies.

Mill Supplies.—A. E. Creigh, general manager Ronceverte Lumber Co., Ronceverte, W. Va., wants shafting, pulleys, belting, etc.

Naval Supplies.—Bids will be received until April 17 at the bureau of supplies and accounts, Navy Department, Washington, D. C., for a quantity of naval supplies, as follows: Electrical supplies, corundum wheels, wire, tools, chestnut poles, white pine. Applications for proposals should refer to Schedule 44. Blank proposals will be furnished on application; H. T. B. Harris, paymaster-general, U. S. N.

Paving.—See "Water-works, etc."

Pipe Foundry.—W. A. Morgan, Box 401, Jonesboro, Ark., is in the market for a small quantity of small piping, three-eighths-inch, one-half-inch, finished in lacquer, japan or nickel, to be of sufficient strength to sustain its own weight in 14-foot lengths without sagging.

Piping.—Frank Wright, Cave Springs, Ga., wants a few hundred feet of small iron pipe; second-hand.

Piping.—See "Dry-kiln Equipment."

Railroad Construction.—Bids will be received until April 25 at office of N. C. Van Natta, chief engineer of the Kanawha & West Virginia Railroad Co., Charleston, W. Va., for grading, tunnelling, bridging and track-laying on a 12-mile extension of the Kanawha & West Virginia Railroad. Profiles, plans and specifications can be examined at chief engineer's office. Usual rights reserved.

Railway Equipment.—Cairo & Kanawha Railway Co., C. B. Kefauver, general superintendent, will purchase three miles 40-pound relaying rails with splices, push and hand cars for three-foot gauge, passenger coach and one combination coach and baggage, all for narrow-gauge road; new or second-hand in good condition.

Railway Equipment.—Southern Machinery Co., Cuarto D. Bettemitas No. 203, City of Mexico, Mexico, wants relay rails, all sizes; locomotives. Quote price f. o. b. cars shipping point.

Railway Equipment.—Peacock's Iron Works, Selma, Ala., wants second-hand narrow-gauge logging cars, 10 and 15 tons capacity, to run on iron or steel track.



**Railway Equipment.**—A. V. Kaiser & Co., 222 South 3d street, Philadelphia, Pa., wants eight or nine standard-gauge six or eight-wheel switching engines, 18, 19 or 20x22 or 24 with total wheel base of engine not to exceed 11 feet 6 inches.

**Railway Equipment.**—General Engineering & Supply Co., Colorado Building, Washington, D. C., wants an 8 to 12-ton standard-gauge saddle-tank locomotive for immediate delivery.

**Roofing.**—John Shelnutt, 13th and Moore streets, Anniston, Ala., wants roofing.

**Saw-mill.**—Benjamin Worley, McDowell, Texas, wants complete equipment for saw-mill, including engine and boiler.

**Saw-mill.**—A. Stroud, general manager Myrtle Grove Building & Trust Co., 1202 South 6th street, Wilmington, N. C., wants complete equipment for saw-mill.

**Saw-mill.**—J. G. Humphrey, Castle, N. C., wants a second-hand portable saw-mill.

**Saw-mill.**—Spencer-Lane Company, Ore Hill, N. C., wants equipment for saw-mill of 20,000 to 30,000 feet daily capacity.

**Scow-construction Supplies.**—F. C. Blackmer, Jacksonville, Fla., wants bids on bolts, iron shoes and wrought-iron work used in scow construction.

**Sewerage System.**—See "Water-works, etc."

**Sewing Machines.**—See "Awning Machinery."

**Shingle Mill.**—Pate Manufacturing Co., Argyle, Ga., wants improved machinery for shingle mill.

**Stove Foundry.**—Jones & Hopkins Manufacturing Co., 216 North Third avenue, Nashville, Tenn., wants machinery and tools for manufacturing steel ranges; also foundry tumblers, etc.

**Venetian Blinds.**—See "Blinds."

**Woodworking Machinery.**—A. E. Creigh, general manager Ronceverte Lumber Co., Ronceverte, W. Va., wants one heavy flooring machine, band resaw, band rip saw, eight-inch four-side molder, 26-inch double surfacer, seven-saw lumber trimmer.

**Woodworking Machinery.**—W. C. Ward, Saluda, N. C., wants machinery for making locust insulator pins and laths.

**Woodworking Machinery.**—Syleeacau Manufacturing Co., Rock Hill, S. C., wants new or second-hand tenoning machine, mortiser and shaper.

**Woodworking Machinery.**—K. J. & H. L. Carpenter, Rutherfordton, N. C., want prices on machinery for making crossarms, pins and brackets for telegraph and telephone poles.

**Woodworking Machinery.**—Louisa Manufacturing Co., Louisa, Va., wants prices on machinery for making shuttles and croquet sets.

**Woodworking Machinery.**—See "Furniture Machinery."

**Woodworking Machinery.**—Sittinger-Carney-Davis Company, Richmond, Va., wants machinery for screen door and window factory.

**Water-works, etc.**—Hattiesburg, Miss., C. W. Rich, mayor, will open bids April 10 for extending water-works, constructing sanitary and storm-water sewers, for paving and curbing various streets and constructing seven concrete abutments, approximately 700 cubic yards. Contracts to be known as Nos. 1, 2, 3 and 4, respectively. Specifications for the work can be had by applying to Richard C. Huston, city engineer, Keyes Building. Certified check for Contract No. 1, 2 and 4 for 10 per cent. of amount of each bid and for Contract No. 3 for 5 per cent. of amount of each bid must accompany bids. Contract to be let under the rules of the American Public Works Association. Contract to be paid for in cash, for which \$200,000 is available. Usual rights reserved.

#### Knows a Good Thing.

Messrs. Adam Cook's Sons, 213 West street, New York city, the only makers of "Albany Grease," offer to supply engineers with a grease cup and samples of "Albany Grease" free for testing, that they may know of their own experience what an ideal lubricant this well-known compound is. They recently received a letter from F. E. Ewin, engineer of the Jackson (Ohio) Ice & Fuel Co., who writes: "I received your samples of 'Albany Grease' and Albany Grease cup all right, and I will just say that I have made a test of your 'Albany Grease' on my little engine that I run 250 R. P. M. I then speeded the engine up to 400 R. P. M., with Albany Grease as a lubricant, telling them that it is the best lubricant on the market today, which I will continue to do, as I know a good thing when I see it, and I like to tell the good people the simple facts."

#### MEXICO.

**Locomotive Factory.**—Thomas H. Wheelless, Mexico City, has applied for concession to establish factory for steam and electric locomotives.

**Mineral and Timber Development.**—The American-Mexican Investment Co. has been incorporated with capital of \$100,000 to develop 222,000 acres of mineral and timber lands in State of Durango. W. R. Barksdale, L. E. Campbell, S. R. Corbett, H. C. Williamson, W. L. Johnson and Caruthers Ewing, all of Memphis, Tenn., are the incorporators.

#### Railways.

**Steam Railroad.**—The Tehuantepec National Railway will, it is reported, build a second track. D. Coe is chief engineer at Rincon Antonio, Mexico.

**Steam Railroad.**—Reported that the Mexican Central Railway is preparing to begin construction soon on its short line from Mexico City to Tampico. Lewis Kingman is chief engineer at Mexico City.

**Steam Railroad.**—Reported that the National Railroad of Mexico will purchase the Hidalgo & Northeastern Railway and will build extensions to Vera Cruz, Tampico and Brownsville. R. T. Macdonald is chief engineer of the National Railroad at the City of Mexico.

**Steam Railroad.**—Reported that the Quetaro Southern Railroad Co. proposes an extension of its line, originally proposed between Quetaro to San Isidro, from the latter point to Acambaro. Alfred C. Spencer of Quetaro and others of that city are interested.

## SOUTHERN CITY INDUSTRIAL NOTES

[Special Correspondence Manufacturers' Record.]

Daytona, Fla., March 22.

Mr. Roy LaSha of Daytona, Fla., is an electrical contractor who speaks hopefully of progress and increase of population in Daytona and Florida east-coast towns and cities. Within the past two years Mr. LaSha's business has doubled itself twice with regard to volume, an indication of the growing demand for electrical fixtures and supplies, while incidentally reflecting the growth in population. Mr. LaSha is an electrical engineer of many years' practical experience, a number of the great hotels along the coast having been fitted out with electric-lighting equipment and the usual attachments by him. Among the latest contracts completed by Mr. Shea is the 150-light Westinghouse electric plant in the hotel of J. H. Walbaum, Ormond, Fla. A line of fixtures, fittings, are lamps, bulbs, motors and a general supply of things electrical are carried by Mr. LaSha in stock in conjunction with his salesrooms and machine shops.

Mr. J. D. Carmichael carries a line of plumbing, gas, steam, hot-water and heating-apparatus work, together with a large line of plumbers' supplies, fittings, sewer pipes, etc. He is a practical mechanic of 15 years' experience, he and his skilled workmen being in constant demand in the adjusting, repairing and needed equipment of the steam plants of the great hotels in Daytona and along the Florida coast.

Mr. R. S. Maley, Daytona, Fla., carries a heavy line of building material and supplies. Mr. Maley is also the proprietor of a hardware store on Daytona's main street overlooking the sound, the stock of which is valued at \$40,000. Mr. Maley has been in Daytona for 25 years and stands high in the business community of this beautiful city.

The electric-lighting and ice plants of Adam Schantz are under the general management of S. N. Gore. They are modern establishments equipped for furnishing lighting to the people and preserving their food. Mr. Schantz, whose headquarters are at Dayton, Ohio, is the inventor of a purified and filtered water which receives special treatment to endow it with medicinal qualities. It is claimed that water purified by this process will not form scale in boilers, and Mr. Schantz says: "I have operated the boilers at my brewery, ice and 'Lily Water' plants for 14 months with my filtered water, and the flues are today as clean as the day they were installed."

While in Coconut Grove, Fla., I found that little city very progressive in a business way. Among the leading men is George L. McDonald, civil engineer, whose services are in demand. He makes a specialty of surveying and subdividing lands. Mr. H. Perry of Coconut Grove is active in providing the people with an economical equipment for raising water by wind power. He handles the best mills manufactured and utilizes his pump mechanism, on which he has recently been granted a patent.

#### KEY WEST.

[Special Cor. Manufacturers' Record.]

Key West, Fla., March 23.

Key West has a prominent position in the commercial world, presenting a number of novel and attractive features. It is the most Southern city of the United States, has a deep and capacious harbor, a unique location as a naval station, unrivaled advantages as a coaling and wireless-telegraph station and a port of call, its proximity to Cuba, Central American republics, the West India Islands, and an immediate prospect of being bound by Henry M. Flagler's iron roadstead to the mainland, some 63 miles distant. I was here several days, during which I found much of interest from a purely commercial standpoint. Not the least interesting feature is the fact that the residents are mostly thor-

oughgoing Americans, keenly alive to the advantages which their island offers to manufacturers, capitalists and homeseekers. It was not possible to secure complete data covering Key West's business and exports for 1905, but the chief exports of 1904 were: Phosphates, 72,925 tons, \$364,625; sponges, 400,000 pounds, \$500,000; cigars, 76,000,000, \$1,940,000; fish, 561,150 pounds, \$15,174; other exports, \$553,592; total value of imports, \$641,093.

The following statement, showing collections from all sources during the fiscal years ending June 30, 1898, to 1905, both inclusive, will prove interesting at this time: 1898, \$240,318.66; 1899, \$225,420.19; 1900, \$337,085.84; 1901, \$386,355.03; 1902, \$401,706.63; 1903, \$434,030.72; 1904, \$451,203.55; 1905, \$479,026.37.

During 1905 some 560 foreign vessels entered the port with a tonnage of 350,890 and 480 cleared with a tonnage of 325,000. Key West has a population of 23,000. Its streets are modern and its residential structures would credit any progressive community. The American Tobacco Co. will soon have in operation its great factory, said to be the largest in the United States, to employ 800 operatives at first and be increased to 1500 during the year. In all there are 6000 people now employed in the manufacture of cigars. The sponge industry gives employment to hundreds of schooners of all sizes. An appropriation of \$1,000,000 has been requested from the government to lay a cable to Cuba.

There are opportunities for fish canneries, cigar-box factories, soap factories and a modern foundry and machine shop. A fact which indicates an opportunity of an exceptional kind is that while numerous coastwise and foreign vessels enter and leave daily, there is not one machine-fitting or shipsmith's plant. In conversation with Commandant Beehler of the Key West Naval station, we were interrupted by a Key West citizen soliciting permission to have a small shaft turned in the government machine shops. This inquirer was told to go through the usual form of filling out a blank to the effect that the work required could not be undertaken by any other shop on the island. It is evident, therefore, that a plant for repairing ships is urgently needed.

In view of the great impetus which the Florida East Coast extension will give to Key West's trade, plans have been completed and suitable appropriations asked from the government for dock development, harbor deepening and sea-wall construction. These improvements, in connection with Mr. Flagler's plan, mean an expenditure of perhaps \$20,000,000 within the next five years. It is planned to deepen and widen the harbor so as to accommodate about 50 large steamships.

In addition to the naval force there are also 400 soldiers stationed here. The fort as viewed from the sea presents an innocent-looking elevated green sward, but it is, nevertheless, a most modern system of land defense. The United States has completed surveys to determine the cost of making a 400-foot-wide and 30-foot-deep harbor one mile long and half a mile wide, abutting the naval wharves and buildings. Borings and all preliminaries have been completed, and it is estimated that \$10,000,000 will be expended. Key West has lately ceased to be an island strictly, as it is now connected with Stock Island, the railroad grading having been completed. It is intended to parallel the railway grading with an extension of the electric railway system to Stock Island.

The Key West Chamber of Commerce, organized a year ago, will become an important factor in the development of the island. Its membership includes W. D. Cash, president; George W. Allen, first vice-president; George S. Walte, second vice-president; E. M. Martin, secretary-treasurer. The standing committee on manufactures is Messrs. W. R.

Porter, O. C. G. Urban, B. D. Trevor and F. H. Ladd.

Key West has an electric railway, a modern water-works system, an \$80,000 city hall and a large market. It is the only city in the country where frost is unknown, its lowest temperature being about 54 degrees and its highest 90 degrees. Artificial heat is used only for cooking.

The Key West Realty Co. is an active enterprise capitalized at \$300,000, of which George W. Allen is president, and Wm. R. Porter, secretary-treasurer. It invites inquiries from manufacturers, investors and homeseekers. The company owns 1000 acres, including five miles of water-front. Land is rapidly increasing in value in view of the favorable conditions and the extensive improvements being undertaken by government and private enterprise as outlined above. The officers of the Key West Realty Co. are permanent residents, and their individual interests are all centered here. Manufacturers who want sites for plants will find the company ready to donate the land and assist them in other ways. The Mr. Allen above named is also United States collector of customs, president of the First National Bank and an earnest worker for Key West's advancement. Mr. Porter is also prominent in advancing Key West's interests. Messrs. Porter and Allen induced the American Tobacco Co. to build its big plant, for which they gave a site of six acres.

The Key West Electric Co., O. C. G. Urban, general manager, has contracted for considerable new electrical machinery consisting of three alternating generators of the Fort Wayne type, 450 kilowatts, for lighting purposes, together with an additional 150-kilowatt equipment for the company's electric railroad. The present plant is of a 1000-kilowatt capacity, comprised of several makes, including Stanley-G. L., General Electric and Westinghouse.

The Key West Electric Railroad has a mileage of seven. The future of Key West, however, is assured, with regard to development, due chiefly to Key West being the terminus of the Florida East Coast Railway extension. Key West has now been connected with Stock Island, the filling, leveling and grading for this extension having been completed. It is Mr. Urban's intention to parallel the Florida East Coast Railroad lines with his electric trolley system, passing over to Stock Island and adjoining keys. Rolling stock is needed by this company. Address O. C. G. Urban, general manager, Key West, Fla.

Mr. M. R. Coster has extensive workshops and premises on one of the leading thoroughfares. He does an important business in plumbing, gutting, gasfitting and roofing, together with a general line of sheet-metal work. He is agent for Colt's gas generators and the "Aermotor" windmill. Among his latest contracts was the roofing, zincing and general plumbing work of the new Havana-American Cigar Co.'s factory, the largest in the United States, and which is expected will be in operation during the present month.

The First National Bank of Key West has a capital of \$100,000, with surplus of \$30,000, and conducts a general banking business. Mr. George W. Allen is president; G. Bowne Patterson, vice-president, and Geo. L. Lowe, cashier. The directors are Messrs. John Lowe, Jr., John F. Horr, Charles S. Williams, J. W. Allen, George S. Walte, George L. Lowe, G. Bowne Patterson, William R. Kerr and George W. Allen. The bank's building is possibly the first important building to meet the eye of the Key West visitor. The bank has from its inception enjoyed a profitable business and ranks among the first in the stable institutions of the island City.

The Island City Electric Works & Supply Co., J. C. Whalton, Jr., manager, is one of the newest firms in this line in Florida. Mr. Whalton carries a line of supplies and has had a number of years of practical experience in the service of the Key West Electric Co.

#### WEST PALM BEACH.

[Special Cor. Manufacturers' Record.]

West Palm Beach, Fla., March 29.

This progressive little city will soon have an institution of learning graded from the kindergarten to the advanced high-school stages at which students will be qualified to enter the State University. Messrs. Bruce, Everett & Hayes of Atlanta, Ga., are preparing plans for the buildings, which will be of Spanish architecture and cost from \$30,000 to \$40,000. The interior arrangement includes auditorium with stage having a seating capacity of 7500. There will be 14 schoolrooms. Building proper will be 176 feet long by 154 feet wide. The site of this institution is nine acres in extent, located in a commanding position overlooking Lake Worth. Spacious halls will extend the length

of the building north and south, east and west, intersecting at the center, thus affording abundant ventilation. No heating system will be required, as Palm Beach is on the frost line. Each schoolroom will have cloak-room and lavatory adjoining, while at each end of the main building lavatories for boys and girls, respectively, will be provided. The school tower will be 110 feet high, and the materials artificial stone and marble-veneer block. Further information regarding this educational institution can be obtained from Guy I. Metcalf.

A new architect here is Emil A. Ehmman, who was formerly with McGuire & Macdonald of St. Augustine and Palm Beach. Mr. Ehmman has had considerable experience in the preparation of plans and specifications

for various classes of buildings, and anticipates being busily engaged in a professional capacity for new buildings to be erected in this city and throughout the South.

A prominent firm here is Messrs. George H. Haslehurst & Son, who are erecting engineers, mechanical draftsmen and general contractors. They have had many years' experience in ice and cold-storage plants, electric-light plants, electric-power plants and other industrial enterprises, and will doubtless continue to have their services called upon freely by the people of Florida and the South. Messrs. Haslehurst & Son have decided that Cuba offers good opportunities for their services, and will establish a branch office in Havana during the next 60 days.

JOHN BANNON.

## INDUSTRIAL NEWS OF INTEREST

### Foller's Earth Wanted.

Mr. J. N. Bruck, Box 244, Jennings, La., wants fuller's earth, 80 and 120 mesh, free from sulphur. He wants prices on carload lots.

### Retail Lumber Yards for Sale.

Six retail lumber yards located in Arkansas, also a planing, sash and door mill, are offered for sale by Gus K. Jones, Little Rock, Ark.

### A Clegg Contract.

Messrs. F. A. Clegg & Co., Louisville, Ky., have been awarded the contract for the heating and ventilating equipment for the National Cash Register Co.'s building at Dayton, Ohio.

### Manufacturers' Advertising Bureau.

Those who are interested in the services of the Manufacturers' Advertising Bureau of New York city should note that the company has removed its offices from 126 Liberty street to 237 Broadway.

### Shingle Mill for Sale.

Manufacturers who may be interested in an offer to sell the complete equipment of a shingle mill can address the Birmingham Trust & Savings Co., trustee, Birmingham, Ala., regarding a proposition which it has in charge.

### Zinc Lands for Lease.

The Capital Mining Co. wants to arrange by lease or otherwise for the development of lands in the Arkansas zinc belt. It is claimed that the deposits are of high marketable value. For information address Clement H. Yost, Little Rock, Ark.

### Knitting Machinery Offered.

A quantity of textile machinery, including numerous knitting machines and accompanying apparatus, is offered for sale by Messrs. Myers & Co. of Norfolk, Va. A detailed list is presented in their advertisement in the advertising columns.

### To Represent Manufacturers.

Mr. N. S. Fitzhugh, broker and manufacturers' agent of builders' materials and supplies, 807 Kanawha street, Charleston, W. Va., desires to represent manufacturers of all kinds of building material in Charleston and vicinity and invites correspondence.

### Hosiery Mill for Sale.

An established Southern hosiery mill is offered for sale because of the death of the principal owner and manager. It is equipped for manufacturing 500 dozen pairs daily. For full information address I. H. Sykes, secretary Progressive Union, Columbus, Miss.

### Another W. K. Palmer Contract.

The city of Grand Island, Neb., is about to build an electric-lighting and water-works plant, specifications for which have been on file some time. It has engaged W. K. Palmer, 718 Dwight Building, Kansas City, Mo., as consulting engineer in charge, and will receive bids until April 23 for the equipment, materials and supplies needed.

### Flour Mill for Sale.

An established Southern flour mill is offered for sale. It is one of the best equipped plants in its section, has been operated less than 12 months, and its owner has more important interests claiming his attention. The mill is located at Durham, N. C. For full information address the Real Estate Exchange & Trust Co., Durham, N. C.

### Buffalo Forge Co. News.

On March 17 the Buffalo Forge Co. gave a dinner to the heads of its office force at the Elliott Club, Buffalo, N. Y. Twenty-four persons were present. Mr. Fox of the financial department acted as toastmaster, while Mr.

Wendt, Mr. Lake and others made impromptu speeches, and every effort was made to promote good fellowship and the best of understanding between the various departments.

### Tapestry Plant for Sale.

The plant of the Royal Tapestry Co. at Front Royal, Va., will be offered for sale on April 26. It is comparatively new, and includes a three-story building 8x120 feet, equipped with power and textile machinery for manufacturing tapestry. Messrs. E. H. Downing, trustee for E. H. Jackson, special commissioner, can be addressed at Front Royal for particulars.

### An Opportunity for Capitalists.

An established Southern machinery enterprise wants to interest a young man with \$10,000 to \$20,000 capital in a partly-established gasoline-engine manufactory. The shop is now doing general repair work, with the engine as a side line, and wishes to develop this branch in territory to be mainly in the South. For full details address "Gas Engine," care Manufacturers' Record.

### Marine Engine & Machine Co.

The Marine Engine & Machine Co. of 126 Liberty street, New York, has leased and will occupy as headquarters for its elevator-construction department the new building at 239 and 232 West 13th street. The company's location on West 24th street had become too small for its increasing business in elevators, and in the new building modern conditions and facilities will give decided advantages.

### Desirable Property Offered.

Parties who are interested in Southern investments will doubtless be attracted by the offering for sale of a property adjoining that of the navy-yard at Charleston, S. C. The property referred to is conveniently located with reference to railroad and trolley lines, and contains a high grade of marl, beside clay for brick and pottery. Details concerning it will be furnished by H. Schachte, Charleston, S. C.

### Machinery for Southern Power.

The Westinghouse Electric & Manufacturing Co. of Pittsburgh received through its Atlanta office a very large order for electric machinery from the Southern Power Co., Fort Lawn, S. C. The order includes eight 3000-kilowatt three-phase 2200-volt 60-cycle generators for direct connection to water-wheels and to operate at a speed of 225 R. P. M., two 250-volt exciters and 12 3000-kilowatt oil-insulated water-cooled transformers.

### Mr. George Dieringer, Architect.

Mr. George H. Dieringer, architect, announces that he has returned to Wheeling, W. Va., and established offices in the Lange Building, 1428 Market street, in that city. Mr. Dieringer makes a specialty of high-class residence work, in which he has been especially successful. He was for eight months associated with Mr. W. B. Camp of Jacksonville, Fla. Mr. Dieringer wants catalogues and samples of building materials and supplies.

### Otis Escalators Ordered.

The Siegel-Cooper Company of New York has contracted with the Otis Elevator Co. of New York for two additional escalators. These new machines will be located, respectively, between the third and fourth and fourth and fifth floors of the Siegel-Cooper Building. The first escalator placed in the Siegel-Cooper store was installed several years ago, and the recent contract serves to indicate the satisfactory service rendered by the original machine.

### Locomotives Sold.

Locomotive orders by the Chesapeake Railway were for three 150-ton Shay's;

Davidson Lumber Co., Bridgewater, N. S., 17x24 six-wheel switcher; Marysville & Northern Railway Co., Bryant, Wash., one 37-ton Shay; Clear Creek Lumber Co., Birmingham, Ala., one 37-ton Shay; Flat Creek Mill Co., Mobile, Ala., one 37-ton Shay, and Culbreath Logging Co., Huttig, Ark., one 37-ton Shay. The Lima (Ohio) Locomotive & Machine Co. builds the Shay locomotives.

### Big Contracts for Looms.

Messrs. Alexander & Garsed of Charlotte, N. C., representing the George W. Stafford Company of Reidsville, Mass., have received contract from the Dan River Power & Manufacturing Co. of Danville, Va., for 1100 Stafford automatic looms, the cost of which will be about \$500,000. The firm named has obtained several large orders recently for Stafford automatic looms. It also sold a complete equipment for working over old jute bagging to the Verner Oil Co. of Lattimore, N. C.

### Shirt Factory for Sale.

The attention of those who are interested in an investment in a shirt-factory proposition is invited to the announcement of a sale of property of this character at Crisfield, Md. The building is located on a lot with a church building and about 20 feet from it, of frame construction, 30x60 feet, equipped with power and sewing equipment. The church building is 35x70 feet, and may be made available for factory purposes. Further information obtainable from J. L. Carmen.

### Messrs. Bruce, Everett & Hayes.

Mr. A. C. Bruce, formerly of Bruce & Morgan, and A. F. N. Everett announce that they and Charles A. Hayes, formerly of Knoxville, Tenn., have organized under the firm name of Bruce, Everett & Hayes, architects, with offices at 706 and 708 English-American Building, Atlanta, Ga. The individual members of the new firm extend their thanks for patronage which they have received in the past and solicit further consideration from those who may contemplate the erection of buildings of any kind.

### Mr. George C. Cook Dead.

It is announced that Mr. George C. Cook died suddenly on March 21. Mr. Cook was a member of the firm of Adam Cook & Sons, New York, large manufacturers of lubricants, having correspondents in every section of this country, as well as extensive connections with Europe. He was well known for his energy and business acumen, and held high rank among the merchants and manufacturers of New York. His loss will be keenly felt by a large number of friends in both the social and business world.

### Allis-Chalmers Enlargement.

The Allis-Chalmers Company of Milwaukee, Wis., is expending over \$3,000,000 for the various and extensive improvements now in progress at its West Allis works. When completed these works and the other plants in Milwaukee, Chicago, Cincinnati and Scranton will be capable of affording employment to a total of 15,000 persons. The latest methods in construction are being followed in regard to the buildings, and the mechanical equipment as well will be on a par with previous action by the Allis-Chalmers Company.

### "Scratch a Match."

A new brand of roofing is now being marketed by the C. W. Trainer Manufacturing Co. of 89 and 91 Pearl street, Boston. It is called the Crystal Brand Roofing, and is saturated with pure Trinidad asphalt, its manufacturer claiming it to be sparkproof, easy to apply, light and clean, and having other features that will appeal to discerning users of roofing. A card advertising this roofing is being distributed. It says "Scratch a Match" on Trainer's Crystal Brand Roofing, and a piece of the roofing is attached for this purpose.

### Recent Buffalo Contracts.

Recent contracts taken by the Buffalo (N. Y.) Steam Pump Co. include the following installations of especial interest: Buffalo steam and power pumps—One 12x7x12 duplex to Ahmedabad, India; four boiler-feed pumps to the Texas Manufacturing Co., Fort Worth; three large duplex to the Havana Coal Co. Buffalo centrifugal pumps—One 14-inch two-stage to a large sugar refinery in Hawaiian Islands; one 10-inch composition mine pump to coal department of Delaware & Hudson Company, Carbondale, Pa.; one three-inch two-stage turbine pump to Clinton (S. C.) Mills.

### Mr. F. C. Blackmer Is Busy.

The Manufacturers' Record has received from its correspondent, John Bannon, news that F. C. Blackmer of Jacksonville, Fla.,

has received contract from the United States government for two dredge scows for use in Cape Fear harbor, Wilmington, N. C. Mr. Blackmer is a general contractor and builder of dredge hulls, dump scows and lighters. He has also received contract to build eight scows for the Florida East Coast Railroad, these scows to be used in dredging work at Key West. Mr. Blackmer wants bids on belts, iron shoes and wrought-iron work used in scow construction.

### Japan's Largest Power Station.

It is stated that the largest electrical generating station in Japan is that which the Tokio Electric Light Co. is now constructing. This station will have five 3900-kilowatt Siemens-Halske machines direct connected to Escher Wyss water-wheels. The generators will deliver a 50-cycle current at 6600 volts. All high-tension switches are of the well-known General Electric H3 oil-type motor, operated and electrically controlled from a separate five-panel tension board. The General Electric Co. of Schenectady, N. Y., is prominent in furnishing the mechanical equipment for the new station.

### Recent York Contracts.

The most recent contracts of the York (Pa.) Manufacturing Co. were as follows: Albany, N. Y., Beverwyck Brewing Co., three 125-ton compound-condensing refrigerating machines, brine system and piping for new stockhouse; Chicago, Ill., Chicago Cold Storage & Warehouse Co., adding a 175-ton refrigerating machine; Yorktown, Texas, F. Koenig & Son, complete 10-ton ice-making plant; Lebanon, Pa., J. H. Sharp & Co., 6-ton refrigerating plant in slaughter-house; Toronto, Canada, Reinhardt & Co., 60-ton refrigerating machine in brewery, and Lititz, Pa., Ideal Cocoa & Chocolate Co., 20-ton refrigerating plant.

### Will Use Normandin Machines.

A concrete-block company to be established at Independence, Kan., will use the Normandin concrete-block machines. It has been organized by T. L. Shaffer under the title of the American Concrete Co., and has ordered a Normandin machine with a daily capacity of 250 blocks, and will also manufacture cups, lintels, sills, balustrades, steps, hitching posts and other concrete articles. The concrete-mixing machine purchased has a daily capacity of 100 cubic yards. Prospective buyers of concrete-block machines should note that the Normandin block machinery referred to is built by the Cement Machinery Co. of Jackson, Mich.

### The Haubtman & Loeb Company.

It has been found necessary to extend the facilities of the Haubtman & Loeb Company at New Orleans because of the increasing demand for the facilities of the enterprise. The company has purchased a site on which it will erect buildings as extensions to present structures and to be equipped for rebuilding machinery. The site purchased is 200x275 feet in size, and will be covered with shops, storerooms, warehouses and offices. For 12 years the Haubtman & Loeb Company has been handling new and second-hand machinery, having met with considerable success, and now plans to enter more extensively into the second-hand branch.

### The Morse International Agency.

The Lyman D. Morse Advertising Agency of New York announces its change of title to the Morse International Agency, and that it will remove on May 1 to new and more extensive offices in the Revillon Building, 19 West 34th street, New York city. These changes are made in order to facilitate the agency's business dealings with clients and publishers in this country and abroad and to make the name of the agency more comprehensive, as its relations now extend to all parts of the world. The Morse Agency has for 57 years represented the better element and most approved business methods in the development of trade through advertising.

### Rapidly-Growing Hendersonville.

Among the many Southern cities which are growing rapidly is Hendersonville, N. C. There are natural advantages for manufacturing and other business enterprises, and these are being given the attention of progressive men. In building operations especially is Hendersonville presenting a good record at this time. The numerous buildings now being erected and improved include 24 residences, two churches, seven store structures, a city market, stables, hotels and others. The aggregate cost of these building improvements will approximate \$115,000. Possibly no other city of comparable population in the South is making such steady progress in this direction as is Hendersonville. The Board of Trade of the city is actively promoting the advancement of Hendersonville's



interests and is prepared to furnish specific information to people who may think of locating industries or engaging in other business enterprises or making their homes in the Southern States.

#### Consulting Engineers for Railway.

The Philadelphia, Coatsville & Lancaster Railway Co. is operating the first six miles of its railway, and the remainder will be constructed the following summer, making 12½ miles from Coatsville to Lancaster, Pa., and connecting the intervening towns of Pomerene, Parksburg, Lenover, Atglen, Christiansburg and Gap. The completed railway will connect up with other trolleys recently completed, and thus give through connections from Harrisburg to Philadelphia. The Roberts & Abbott Company of Cleveland, Ohio, has recently been retained in a consulting capacity for the property. The railway is being financed by Messrs. W. J. Hayes & Sons of Cleveland.

#### Mr. R. H. Reed Resigns.

Mr. R. H. Reed of 85 Liberty street, New York, has resigned as sales manager for the Reeves Engine Co. of Trenton, N. J., and severed his connection with that enterprise on March 31. During the past four years Mr. Reed has been active in making the "Reeves" engine one of the most favorably-known machines of its type on the market and bringing the sales from a very small beginning to an enviable magnitude. Mr. Reed's many friends are hoping that he will continue in a field in which his executive ability has proven so effective, and it is believed that he will become a more important factor than he has already been in the promotion of the sales of high-speed engines.

#### Hayden Concrete Machinery Sales.

Among the representative manufacturers supplying machinery is the Hayden Automatic & Equipment Co. of 26 Cortlandt street, New York. This company's recent sales included the following: Hayden automatic concrete machine for use in erecting a linen plant building, 150x56x38 feet, for the Ernest Simons Manufacturing Co. of South Norwalk, Conn.; two Hayden concrete-block machines, automatic concrete mixer and a carload of equipment for building 50 apartment-houses and residences at Evergreen, L. I., N. Y., for the Park Concrete & Construction Co. of that city; two Hayden automatic concrete-block machines, automatic mixer and large equipments for erecting an office building for the Bridgeport (Conn.) Real Estate Investment Co.

#### Buffalo Forge Co.'s Installations.

In the execution of its general work the Buffalo Forge Co. of Buffalo, N. Y., is quite frequently employed to install heating and ventilating apparatus for railroad work. Among recent installations of this character it has equipped the shops of the Queen & Crescent Railroad at Somerset, Ky.; boiler, tank and carpenter shops of the B. R. & P. Railroad at Du Bois, Pa.; installed large ventilating fans and engines for the Erie Railroad for the Bergen tunnel; equipped a roundhouse of 18 stalls at Monroe, Va., for the Southern Railway; roundhouse of 32 stalls at Emporia, Kan., for the Atchison, Topeka & Santa Fe Railway; roundhouse of 23 stalls at Burnside, Ill., for the Illinois Central Railroad, and roundhouse of 32 stalls at Parson, Kan., for the Missouri, Kansas & Texas Railroad.

#### Southern City Lighting Plants.

The Crocker-Wheeler Company of Amper, N. J., has recently received orders for three engine-type alternating-current generators from Dothan and Troy, Ala. The Dothan generators are of 100 and 200 kilowatt, 60 cycles, three-phase, 2300 volts. The third, of 150-kilowatt capacity, will be installed at Troy. The voltage, cycles and phase of this machine are the same as those of the Dothan machines. All three are to be direct-connected to engines. The town of Dothan has been using direct current for lighting, but owing to the rapid growth of the town its officials decided to use alternating current in order to transmit the current more economically over the increased area. Mr. W. E. Culver is engineering the new installation. The new generators give a total alternating-current lighting capacity of 300 kilowatts. The Troy 150-kilowatt generator will supplant the single-phase machines now in use and for the purpose of general municipal lighting and power work.

#### New Insulating Compound.

The Bullock Electric Manufacturing Co. of Cincinnati has placed an order with the Electric Cable Co., 42 Broadway, New York, for the new insulating compound, Voltax, for impregnating field and armature coils. This material is said to be cheaper than rubber insulation, and with the increase in the

price of pure rubber it is coming into very general use. It is stated that tests which have recently been made of this compound by the Electrical Testing Laboratories of New York have shown that Voltax possesses all of the insulating properties of rubber and in many cases has withstood tests far more severe than rubber. And as it has no injurious effects upon copper, it does not require tinning before applying the compound, as there is no corrosive action whatever. Further, it is not subject to chemical changes as are other insulations, and withstands a voltage test 100 per cent. greater than a rubber insulation. These tests have also proven that Voltax wire and cables can be handled at all temperatures, and the insulation will not crack or harden at 20 degrees Fahrenheit.

#### The Killian Fire-Brick Co.

There is a large demand for fire-brick throughout the South and in other sections of the country which is being supplied in large part by the Killian Fire-Brick Co., which has an extensive and modern plant at Killian, Richland county, South Carolina, on the main line of the Southern Railway. This company is capitalized at \$25,000, and its officers are T. M. Waring, president and treasurer; H. F. Hayne, secretary, both of Charleston, S. C., and Thomas F. Davis, superintendent, Killian, S. C. The kiln is said to be the largest in the South, continuous with 30 compartments, and has a daily output of 30,000 fire-brick. The fire-clay deposit is located two miles from the factory, connected by a narrow-gauge railroad. It is a "folded" sedimentary deposit of ample dimension territorially and with an extreme thickness of 40 feet—sufficient for many years. These facilities, together with brick-molding and calcining plants, clay mill, machinery, tenements and lands, cost originally over \$50,000. The entire plant has been overhauled and put in first-class condition to manufacture the "Killian" fire-brick, which has been in use by the trade, mills, factories and railroads for 15 years.

#### Something About Metal Lockers.

Companies, firms and individuals will not be fully awake to their own interest in saving employees' time if they do not give consideration to the improved forms of metal lockers which manufacturers are now offering. Especially in factories are these lockers appreciated, not only by the employee, but the employer as well. These improved lockers afford better sanitary conditions because of the free circulation of air, and they educate employees to be more cleanly, systematic and prompt in their business methods. They furthermore tend to reduce insurance costs, which, of course, is in itself an item to be considered. The Pen-Dar Metal Locker is giving satisfaction in large manufacturing establishments, department stores, hotels, educational institutions, clubhouses, telephone exchanges and other buildings throughout the country. It is manufactured by the Edward Darby & Sons Company of 233 Arch street, Philadelphia. This company is one of the best-known manufacturers of wrought-iron railings and grille work, elevator enclosures, elevator cars, wire window guards, wire cloth, etc. Its Pen-Dar Metal Locker is a specialty introduced several years ago which met with immediate favor throughout the country.

#### New Departure in Electricity.

A new departure in the use of the alternating current for electric-railway operation will soon be instituted in Milwaukee. The system to be installed employs railway motors, which may be used on the direct-current lines of the present trolley system as well as on the long-distance interurban lines, to be equipped with trolley wire furnishing single-phase alternating current. The cars are to be operated by means of the Sprague-General Electric system of electrical multiple-unit control, permitting operation either singly or in trains, which is the system used by the subway and elevated trains in New York, the Boston Elevated and others. It is said this will be the first installation of a purely electric system of multiple-unit train control for alternating current, and adds greatly to the possibilities of the single-phase railway equipment. The Milwaukee (Wis.) Electric Railway & Light Co. is about to equip two of its suburban extensions with this system—one connecting Waukesha with Oconomowoc, a distance of 20 miles, and the second to operate between Hale's Corners and Mukwonago, 16 miles. A trolley potential of 3300 volts will be used on the alternating-current trolley and 550 volts direct current on the existing seven miles of trolley line between West Allis and Milwaukee. The initial equipment includes 10 cars, each to be furnished with four 75-horse-power single-phase motors, equipped with the electric type of multiple-unit control, adapted for both direct and alternating-current service. The General Elec-

tric Co. of Schenectady, N. Y., will furnish the entire electrical equipment.

#### Some Weber Chimney News.

The Weber Steel-Concrete Chimney Co. has recently completed a reinforced-concrete chimney at Lawrence, Mass., for the Arlington Mills, designed and erected under the Weber system. This chimney is 250 feet high above grade; inside diameter, 11 feet. The lower part consists of an outer and inner shell up to the offset, at the height of 78 feet above grade, and from that height to the top of the chimney is a single shell. The reinforcement for the lower portion consists of 240 bars of vertical T steel 1½x1¼x3-16 inches in size, the number of bars decreasing in proportion to the height of the chimney, there being 121 bars at the offset and 16 bars at the top. The outer shell is eight inches thick, with a four-inch air space between the two shells, and the thickness of the inner shell is four inches. The single shell for the upper part is six inches thick. The foundation for this chimney is 34 feet square; the total depth below grade of the foundation is 10 feet, making the total height of the chimney from the bottom of foundation to top of chimney 260 feet. The vertical rings are held together by circular rings of five-eighth-inch round steel, these being placed 18 inches apart. The total weight of this chimney is 113 tons. This system of construction is attracting a great deal of attention throughout the country, and during the last two years a large number of these chimneys, varying in size from 100 feet in height to 350 feet in height, have been built by the Weber Steel-Concrete Chimney Co. of Chicago. A large chimney under this system, 250 feet high by 20 feet inside diameter, is now being constructed in London, England, this being the first chimney of its kind erected in Great Britain. It is stated that the merits of this system of construction are that the longer a chimney stands the more it increases in strength and value, and the draft capacity is superior to other constructions because the chimney is perfectly smooth and round inside and of a uniform inside diameter, giving the highest possible draft capacity. In economy of cost the Weber chimney compares favorably with brick or steel chimneys.

#### Compressed Air for Quarrying.

The application of compressed air for quarrying purposes, such as splitting granite to create working faces or ledges, has not come into general use. This method, however, is employed by the North Carolina Granite Corporation of Mt. Airy, N. C., whose property covers a sloping hillside consisting of a solid mass of moderately hard granite which shows no ledges or bed plane, but splits readily in a straight line. For a number of years the company followed the practice of splitting ledges by the use of gunpowder alone, but the system was not satisfactory, as a large amount of powder was required, as well as considerable length of time. Some time ago water under pressure was substituted for powder, and was found to be an improvement, but is said to have been surpassed in economy and convenience by compressed air produced by the installation of a compressor especially built for the plant by the Sullivan Machinery Co. of Chicago, Ill. Other equipment used, all of which is modern, includes 35 plug drills, three Sullivan tripod drills, four Sullivan quarry bars, 15 surfacing machines and 60 small hand tools, which are operated by air power from a Sullivan-Corliss air compressor. Steam power is obtained by the use of a Sullivan heavy-duty Corliss cross-compound condensing engine, to the rear of which the air cylinders are coupled in tandem.

#### Preventing Disastrous Fires.

Nowadays progressive manufacturers are on the alert to provide any improvements that tend to prevent disastrous fires in their plants. Such a fire was prevented recently by a Victor fire door in the plant of the Trimmont Manufacturing Co. of Roxbury, Mass., and this company wrote a strong letter of recommendation to the manufacturer of the door. Many other letters regarding the strength, simplicity and other features of the Victor fire doors, shutters and trimmings are being received by their manufacturer, the Victor Manufacturing Co. of Newburyport, Mass. They include one from Fred Kilgus, general contractor, Newark, N. J., who says: "As far as we can see, the Victor hardware is better than any which we have ever used, and we can say that we have used a good many makes and hung hundreds of fire doors, but we found your hardware to be the easiest put up and best we have so far used." The Lever Oil Co. of Demopolis, Ala., says: "In making settlement for doors and shutters recently made for us we wish to express our entire satisfaction with same. They are far superior to anything we could possibly make

for ourselves, and they cost but little, if any, more than it would cost us to make an inferior article." The Victor Manufacturing Co. is represented in Baltimore, Md., by Fred H. Jackson, 30½ Rippl Building, 7 Clay street. Inquiries can be addressed there or to the home offices at Newburyport, Mass.

#### Improved Skylighting and Side-lighting.

Nowadays great care is taken when constructing buildings for manufacturing plants and numerous other purposes to provide for an abundance of natural light in the interiors. This demand for ample light attracted the attention of inventors, who have introduced special systems for providing the light, and some reference to one of these, a most successful one and specified by many engineers and architects, is of interest. The system in reference is the Paradigm skylights and fireproof windows or sidelights manufactured by Arthur E. Rendle of 18 West 34th street, New York city. Mr. Rendle's system has been before the public about 10 years, and has been applied to some of the most important buildings throughout the United States. Its efficiencies in these structures are attested by such men as Rear Admiral P. C. Asserson of the United States navy, New York; Lieut.-Com. J. M. Bowyer, head of the yards and docks department, Washington navy-yard; Charles S. Churchill, engineer maintenance of way Norfolk & Western Railway; J. L. Kennedy, New York; T. J. Brerton, engineer Cumberland Valley Railroad; Messrs. Carrers & Hastings, architects, New York; C. C. Martin, chief engineer New York and Brooklyn bridge, New York; the assistant secretary of the United States National Museum and many others of prominence. Mr. Rendle is distributing an illustrated publication which gives some important facts regarding the Paradigm system, and will send copies of it to inquirers.

#### Something About the Calculagraph.

If one is operating a manufacturing plant and hopes to win in the keen competition of today, one would not install obsolete machinery. There are equally logical reasons for not employing obsolete business methods. If you "estimate" the time of your workmen or take their word for it after they have guessed, and base the cost of your products on such uncertain data, you are surely making use of an obsolete method. In consideration of these circumstances and the limited features of some of the devices used in systematizing the work of factory employees, inventive genius originated what is known as "The Calculagraph." This machine computes and records the actual working time of employees; prints the time of day when they begin and finish; makes individual records for every operation on every product; will make such records on all the work performed in a department; its records need not be copied, but may be assorted to assemble in a bunch all the work records of one operative, and by simple addition will show his productive time per day or week. It is evident to anyone versed in factory methods that a device of this character is one which the progressive factory manager cannot neglect to investigate if he wants to be advised regarding ways and means for simplifying the conduct of his plant. The Calculagraph Company, offices 1425 Jewelers' Building, New York city, manufactures the Calculagraph and is distributing a number of booklets explaining the workings of the device, together with specimens of its work.

#### TRADE LITERATURE.

##### Boston & Maine Messenger.

The Boston & Maine Messenger for March 1 contains interesting facts regarding the splendid achievements of the Boston & Maine Railroad in railroad forestry and horticulture—beautifying its extensive steel highway in New England. There is also presented an interesting discussion of the rate question and other news of timely interest.

##### Regarding Ruston, La.

The Ruston Progressive League of Ruston, La., is distributing a booklet presenting statistics regarding Ruston, Lincoln parish, and North Louisiana. This little city is one of the progressive municipalities of its section offering advantages for manufacturers, capitalists and homeseekers looking Southward. Its facilities are briefly outlined in the booklet mentioned.

##### New Test for Lubricant.

In Graphite for April appears an article entitled "A New Test of Dixon's Flake Graphite" by Professor Goss of Purdue University. As this test is a new one, anyone who is interested in better lubrication cannot fail to "sit up and take notice" when this test by Professor Goss is brought to

their attention. The Joseph Dixon Crucible Co. of Jersey City, N. J., publishes Graphite.

#### A Perpetual Calendar.

A useful little booklet has been issued by the Merchant & Evans Company, manufacturer of high-grade roofing plates, babbitt metals, solders, etc., Philadelphia, Pa. It refers to some of the Merchant & Evans products, but mainly comprises a calendar showing the days of the week and the date of the month for every year from 1776 to 1955. This is a very useful little publication, small enough for the vest pocket.

#### Electrical and Steam Machinery.

Manufacturers and others who may happen to be in need of electrical and steam machinery should not place their contracts before examining the new bargain list, No. 5, now being issued by Joseph H. Thompson, Jr. Mr. Thompson is offering a large number of desirable bargains for immediate delivery in direct-connected units for alternating and direct currents, simple and compound engines, boilers, belted generators and motors, arc dynamos, railway motors, cars, steam shovels, transformers, etc. His offices are at 904 Bowling Green Building, 11 Broadway, New York city.

#### To Prevent Fires.

A card now being distributed presents some interesting facts relative to debits and credits in connection with the possible damage which fire may cause in a building, especially one used for business purposes. The debits are mentioned as total loss of valuable goods, water-soaked and flame-scorched remnant, possible loss of life, loss of time, loss of business, loss of papers that money cannot replace. The credit is indicated as a thoroughly reliable device, costing but a few dollars, that prevents serious fire. A post card to the Badger Fire Extinguisher Co., 32 Portland street, Boston, will bring full particulars.

#### Modern Rock-Crushing Plants.

Catalogue No. 4 of the Power & Mining Machinery Co. of Cudahy (suburb of Milwaukee), Wis., is devoted to an explanation of the company's machinery for rock-crushing plants. The company has been especially successful in designing and constructing this class of equipment, and finds the demand for it steadily increasing. Its facilities are entirely modern and comprehensive for producing high-grade rock-crushing machinery, besides machinery for smelting, refining and general mining; also gas engines, boilers and heavy sheet-metal work. If you contemplate buying rock-crushing equipment, examine the Power & Mining catalogue before awarding contracts.

#### Injector Sand-Blast Apparatus.

A leaflet has been issued describing in detail, accompanied by diagram, the injector sand-blast apparatus manufactured and sold by C. Drucklieb of 132 Reade street, New York city. This apparatus may be used for cleaning castings of all kinds, metals for machinery, electrotyping, enameling, etc.; for removing paint and scale from all kinds of metal, cleaning railroad cars, bridges, ships' bottoms, etc. The equipment is a full application for the injector principle as commonly applied to steam injectors, to the sand blast, the highest possible velocity necessary being imparted to the mixture of compressed air and sand by the several air jets, by means of which the quantity of the air can be controlled and directed.

#### Burroughs System in Retail Stores.

Those who conduct retail stores of any kind, especially the larger enterprises, are presumably always willing to be informed regarding improved ways and means for perfecting their systems of conducting business. They will find valuable information for their consideration in an illustrated book which the Burroughs Adding Machine Co. of Detroit, Mich., has issued. This book tells about the Burroughs system for retail stores and includes many illustrations taken from forms in successful use, together with a special chapter devoted to the auditing system of "The Fair," one of the largest mercantile establishments in Chicago, and possibly in the world. A copy of the publication mentioned can be obtained by applying to the Burroughs Company.

#### Cutter Company's Calendar.

Users of electrical machinery are having their attention called to the I T E circuit breakers in a calendar which the manufacturer of those devices is now distributing. These circuit breakers are offered to users of electrical machinery as lengthening the life of their equipment and enabling the employer to keep his employees busy at what he pays them to do. The circuit breakers save

wear and tear on motors and motor-driven tools. Last year was the most prosperous which the manufacturer of the I T E circuit breakers have experienced, and attention is called to this fact in the calendar mentioned. For each month of 1906 the calendar presents an illustration and accompanying text showing how these devices are operated and indicating their economical features. The manufacturer mentioned is the Cutter Company, 19th and Hamilton streets, Philadelphia.

#### Better Fire Protection.

"Better Fire Protection" is the title of a booklet now being distributed for the purpose of telling owners of buildings, especially factory structures, about the merits of the "Safety Fire-Bucket Tank." This is a device which has proven successful in quenching fires in their incipency, and its features will be appreciated by any wide-awake buyer of this class of equipment. The tank encloses six buckets, each of which arises within ready reach as a bucket is removed. The tank contains a chemical solution which in contact with flame forms a gas with a fire-deceiving capacity equal to many times the same quantity of water. This solution does not evaporate or freeze, contains no acid, is harmless and does not lose its efficiency with age. The little booklet gives full details. The Safety Fire Extinguisher Co., 75 West 42d street, New York, manufactures the device mentioned.

#### Modern Coal-Handling Machinery.

One of the most economical classes of mechanical equipment is comprised in coal-handling machinery for power stations, boiler-rooms, coaling stations, gas companies, collieries, shipping docks and other plants. In the production of this special line the C. W. Hunt Company of 45 Broadway, New York, has had valuable experience. In addition to this it has extensive and modern shops equipped with special machine tools for the active and economical execution of work, combined with a corps of efficient engineers to plan installations under any conditions that arise. With experience of over 30 years in this line of work the Hunt people give the purchaser the benefit of cumulated information gained by a wide and varied practice. The C. W. Hunt Company's catalogue 663 details at length and is accompanied by illustrations of coal-handling machinery which the company designs and manufactures.

#### The Charleston Packings.

Almost any packing will give some service under widely different conditions, but engineers usually seek a packing that will be equally efficient under all conditions. It was with this in mind that the Charleston Metallic Packing Co. undertook the manufacture of packings some eight years ago and has established for its products a wide market in the machinery world. The Charleston packings are manufactured by the Charleston Metallic Packing Co. of Charleston, S. C., which company says that it has reduced the variety and style to as small a number as the actual service requirements seem to demand, and claims its packings fulfill all requirements, whether for steam, ammonia, gas, air, hot water or cold water. A catalogue has been issued in convenient form to present these Charleston packings to the attention of those engineers who have not previously become acquainted with their merits. It is well printed and illustrated with accompanying descriptive texts.

#### Star Corundum Wheels.

Manufacturers and other operators who use emery and corundum wheels, grinding machinery and sharpening devices will find it to their interest to examine the catalogue of the Star Corundum Wheel Co., Detroit, Mich. This company offers a comprehensive line of equipment and supplies of the nature referred to, and states that its wheels are waterproof, porous and open, thus insuring free-cutting properties. They are free from dust or odor, durable, and not heating to the work on which they are engaged. In manufacturing Star articles the company aims to produce only that which is the best from every standpoint, and that it has succeeded in so doing is evidenced by the large trade which has been established. The Star catalogue is replete with illustrations of corundum and emery wheels, silicate wheels, electric and belt-driven tool grinders, oilstones and numerous others, besides presenting price-lists and data as to speed and diameters of pulleys which will interest and be of value to users of abrasive materials.

#### Specialists in Fire Protection.

One of the most important questions engaging the attention of the property-owner, especially of structures to be used for manufacturing purposes, is the prevention of fires

and protection from fires that may occur in nearby structures. It is well known that this subject of fire prevention and fire protection is being given greater consideration every day by building owners, and consequently experts in this branch of engineering have come into existence. At this time it is well to call attention to Houston Dunn, consulting engineer, specialist in fire prevention and fire protection in the interest of the property-owner, his offices being at 202 Walnut street, Philadelphia, and he being the Philadelphia representative of the Roberts & Abbott Company, engineers, Cleveland, Ohio. Mr. Dunn's business is to make expert examinations of properties in order to reduce fire hazards to a minimum, and he has been very successful in this direction. An interesting booklet has been issued to give some facts regarding Mr. Dunn's services, and copies of it can be obtained on application.

#### Water-Purification Literature.

There is now being distributed some interesting literature relative to water purification, whether the supply of water is to be used for municipal or industrial purposes. This literature is included in three pamphlets which the Pittsburgh Filter Manufacturing Co. of Pittsburgh, Pa., has published for the benefit of manufacturers and municipal officers who may be investigating the latest processes and equipments for filtration. It includes "Scientific Aspect of Water Purification," "Efficiency of Mechanical Filters," both by Freeland Howe, Jr., sanitary chemist and bacteriologist, of Pittsburgh, and "Water Filtration and Its Relation to Municipal Health and Prosperity. With Some Statistics of Typhoid-Fever Epidemics," by F. B. Leopold. This latter publication is a short discussion in connection with the reprinting of a paper read at the twenty-fifth annual convention of the American Water-Works Association at West Baden, Ind., in May, 1905. The data contained in these pamphlets will be found of considerable value to anyone desirous of investigating the present status of water purification.

#### Kingsley Water-Tube Boiler.

Development and improvements of the steam engine have resulted in producing any given amount of engine horse-power with about one-half the steam and space necessary 40 years ago. But the steam boiler did not keep pace with the engine in reducing power cost. This fact resulted in engaging the attention of inventive engineers who have improved boiler construction so that it is possible to reduce power costs in the boiler-room as well as in the engine-room. The Kingsley Water-Tube Boiler Co. announces that it has perfected a durable internally-fired water-tube boiler which as a coal saver and a space saver will engage the attention of any man who is versed in steam-power practice. The Kingsley boiler is presented to buyers as safe, durable, efficient, and its manufacturer announces a readiness to convince steam users of these facts and to prove to even the most skeptical experts that the improvements embodied in Kingsley construction are such as to improve efficiency and reduce power costs to an extent which no power user can ignore. The Kingsley Water-Tube Boiler Co. is presenting an illustrated pamphlet which gives a clear explanation of the Kingsley boiler, and is accompanied by sectional illustration of its design and construction; offices of company at 21 and 24 State street, New York.

#### Robins Conveying Machinery.

Contractors and other operators who are active in the fields of industry requiring conveying equipments will find timely details regarding improved conveying machinery presented by the latest publications of the Robins Conveying Belt Co., main offices in Park Row Building, New York. These publications are comprised in a series of nine single sheets which explain and illustrate points in propositions which cannot be made entirely clear by a mere written explanation. They present photographic illustrations of Robins machinery being used for removing and excavating earth and rock from the site of a gas house; conveyors in retail coal pockets, with speed and economy and small percentage of breakage; picking belt conveyors, offered as an improvement over the old form of sorting table; carrying sand and stone to gravity mixers; hoisting towers operated by steam power or electricity and of capacity up to 300 tons per hour; automatic self-reversing trippers; coal conveyors in use at steamboat wharves; tailings stackers performing work with economy and speed in California and Africa; self-reversing trippers for distributing coal, cement, refuse, etc., into bins, pockets and open storage. These few references indicate to people in a position to use conveying machinery the

diversified character of the Robins equipments.

#### Stanley-G. I. Electric Machinery.

Bulletin No. 601 for February, 1906, superseding Bulletins No. 145 and No. 340, and illustrating the high-grade direct-current motors and generators manufactured by the Stanley-G. I. Electrical Manufacturing Co. of Pittsfield, Mass., has been issued. Illustrations are presented of motor applications and accessories as well as tables for the use of purchasers which enable them to determine the size of motor or generator best suited to particular requirements. Reference to the tables and rules governing the installation of electrical apparatus will enable one to determine the proper method of wiring as well as the size of wire to be used. It will also show the size of shafting, pulleys, belting to be employed and the distance which hangers should be spaced apart. In the manufacture of its motors and generators the Stanley-G. I. Electric Co. claims that the design of the magnetic circuit is such that under heavy armature reaction the lines of force are but slightly distorted, which enables the company to produce a constant-speed motor particularly well suited to be belted or geared to machinery. It is stated that these motors, with brushes properly seated, will not spark when run in either direction or when subjected to a considerable overload. Among the products of the company is electrical apparatus for the complete equipment of central stations, including direct and alternating-current generators, switchboards and measuring apparatus, transformers, rotary converters, motor-generator sets, lightning arresters, arc and incandescent lamps, arc-light regulators, etc. The products also include direct and alternating-current motors suitable for all purposes, together with other supplies necessary to the installation of electric power.

#### Vacuum System of Cleaning.

The renovation of buildings, with their contents and furnishings, in a rapid and economical manner by machinery has been a problem for many years. The "skyscraper" office building, with its numerous rooms and corridors; the modern department store, containing costly fabrics and merchandise; the elegant church and theater interiors, with their expanse of carpets, upholsteries and tapestries, and the luxurious home, with treasures of art in statuary, frescoes, bas-reliefs, upholsteries, tapestries and furnishings, have each directed attention to the need of a scientific and sanitary system of cleaning. The introduction of the vacuum system of cleaning marks a new era in the history of renovation, and this system is said not only to afford convenience and comfort, but to safeguard health as well. It is employed for removing from rugs, carpets, upholsteries, tapestries, statuary, walls and ceilings all dust, foul gases and dangerous disease germs, and by powerful suction carries them out of the building to the separators below. The system as installed by the Vacuum Cleaner Co., general offices 72-74 Trinity Place, New York, contemplates the installation in public and private buildings, railroad terminals, steamships and other properties of permanent renovating machinery, consisting of engines, motors or other generating plants, vacuum machines to supply the operating vacuum, renovators for contact with the surfaces to be cleaned, vacuum hose to connect the renovators with the vacuum piping, vacuum piping to extend the service throughout the property, and separators to receive, separate and finally remove the dust. Operating power may be electric, gas or steam generated, and the machinery located in some convenient place. The vacuum machine may be vertical or horizontal and of single or double-acting cylinder, as conditions demand. Renovators are of various styles and sizes, according to the surfaces. The vacuum rubber hose is said to be non-collapsible, being supported by steel-wire construction, and the vacuum piping consists of a series of smooth-bore airtight pipes joined by recessed fittings and provided with long-sweep elbow connections. The separator tanks consist of two upright cylinders; the first, by interior construction, is said to separate from the air current the dust in dry deposit, while the second completes the process of separation by passing the air current through a column of water in which the remaining matter is held in liquid suspension. The final removal from the first separator is by a dry-dumping trap valve and from the second by a drainage outlet. In a catalogue issued by the Vacuum Cleaner Co. there is general information concerning the application of the vacuum system of cleaning, together with illustrations of machinery which this company installs and views of buildings where its system of cleaning is in operation.



## The Iron and Metal Trades.

The *Iron Age* in its weekly review says: "There is a good deal of perplexity in the trade over the best course to pursue in view of the labor troubles in the bituminous and anthracite coal fields. To the iron trade at large the production of bituminous coal is a much more important matter than the supply of anthracite. The ironmakers of the central West, of the Chicago district, of the South and many producers on the lakes will draw their usual supplies from sections which will be mining at the usual rate. The anthracite furnaces, nearly all of which use a considerable part of coke in their mixtures, will be somewhat embarrassed and may face a partial stoppage. To what extent this will be offset by a decline in the consumption as the result of coal scarcity cannot be well determined so early.

"It is understood that the Steel Corporation will run full, being completely taken care of.

"There has been some buying of pig-iron by steel works and foundries as a protection against a protracted strike, but the movement has reached only moderate proportions. There has been more interest in the market, however, quite irrespective of this phase of the situation. The foundry trade is on the tip-toe of expectation over the outcome of the bids for 12,000 tons of iron for the Westinghouse interests. There has been some inquiry for malleable pig in the central West, and some business has been closed, notably in St. Louis. In New York a lot of 5000 tons of Southern iron has been placed, the first block of this magnitude for some months. Eastern pipe foundries have taken some round lots of Virginia irons.

"The Steel Corporation has bought a little Bessemer iron, and is expected to purchase more soon for April requirements. The furnaces of the corporation have broken all records during March, having made in that month 1,001,226 tons, as compared with the best previous achievement, 947,476 tons in October, 1905. The production of Bessemer and open-hearth steel ingots, too, was greater in March than ever before. It amounted to 1,208,933 tons, as compared with the best previous record of 1,179,267 tons in January.

"The rail mills are under increasing pressure, and it is becoming a serious problem how to arrange rolling sheets so as to meet deliveries far toward the end of the year. Reports are current that at least one large system is seeking relief by turning to foreign rail makers, hopeless though that step may seem. During the past week sales have aggregated about 35,000 tons in moderate-sized lots.

"The structural mills are crowded, and some very good business is coming up. There are now in the market four railroads whose aggregate requirements of bridge work foot up to 25,000 tons.

"An interesting estimate is that the new steel plant at Gary, Ind., will require about 100,000 tons of structural material in all. The contracts for the material for four blast furnaces for the ore docks and for the ore bins for this plant are to be let at an early date.

"The new structural mill of Jones & Laughlin is expected to start within a short time. It has a capacity of 8000 tons of medium sizes per month.

"After a protracted meeting last week the manufacturers of steel bars have reaffirmed prices. It is understood, however, that an adjustment on season contracts has been made with agricultural-implementation makers."

Mr. Richard Cheatham, secretary of the Southern Cotton Association, is to be manager of a company incorporated at Atlanta, Ga., with \$25,000 capital stock to publish a paper devoted to Southern cotton interests.

## FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

## Review of the Baltimore Market.

Office MANUFACTURERS' RECORD, Baltimore, Md., April 4.

There was only a moderate amount of business in the Baltimore stock market during the past week, and there was little or no feature to the dealings outside of a decline in Houston Oil common.

In the trading United Railways common sold from 18½ to 17½; the trust certificates from 19 to 18½; the incomes from 75½ to 74½, and the trust certificates from 73½ to 74½; the 4s from 92¼ to 92½; Consolidated Gas, 85½ to 86; Gas 6s, 106¾; Gas 5s, 112½ to 112, and Gas 4½s at 100½ to 99. Seaboard new common was traded in at 31½ to 31, and the new first preferred from 91¾ to 90. Seaboard 4s sold from 91 to 89, the latter being ex-coupon, and the 10-year 5s from 103 to 103½; Cotton Duck 5s, 87; G. B. S. Brewing common, 8¼; do. incomes, 33½ to 33¾, and the 1sts, 60½ to 61.

Bank stocks sold as follows: Farmers and Merchants', 54; Citizens', 28½ to 29; Exchange, 182; Commercial and Farmers', blue certificates, 140; Mechanics', 26; Howard, 12½; Commerce, 26.

Trust and other company stocks sold thus: Maryland Trust (voting trust), 116; Maryland Trust preferred, 126; Continental Trust, 198; Union Trust, 64½ to 63.

Other securities were traded in as follows: Atlantic Coast Line 4s, 99½ to 99½; do. new 4s, certificates, 93½; do. Connecticut rights, 55; do. rights, 5¼ to 5½; Houston Oil common, 11½ to 8, last sale at 8¼; do. preferred, 47¾; Baltimore, Sparrows Point & Chesapeake 4½s, 97½ to 97½; Maryland & Pennsylvania incomes, 69½ to 71; do. 4s, 95; North Baltimore 5s, 120; Georgia, Carolina & Northern 5s, 111 to 111½; Northern Central stock, 103; Coal & Iron Railway 5s, 105½; Georgia & Alabama 5s, 110½; Norfolk Railway & Light 5s, 100¼; Western Maryland 4s, 87¾; West Virginia Central 6s, 108¾ to 108¾; Baltimore City Passenger 5s, 106; Macon Railway & Light 5s, 100; Carolina Central 4s, 97½ to 97½; Suffolk & Carolina 5s, 97; Alabama Consolidated Coal & Iron 5s, 93; Baltimore Brick common, 9; Georgia Southern & Florida stock, 35; Lexington Railway 5s, 104½.

## SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended April 4, 1906.

Railroad Stocks.	Par.	Bid.	Asked.
Atlanta & Charlotte.....	100	184½	185½
Atlantic Coast Line.....	100	155¼	156
Atlantic Coast Line of Conn.....	100	360	372½
Georgia Southern & Florida.....	100	35	40
Georgia Sou. & Fla. 1st Pref.....	100	100	100
Georgia Sou. & Fla. 2d Pref.....	100	73	73
Maryland & Pennsylvania.....	100	29¼	31
Seaboard Railway Common.....	100	31	31
Seaboard Company Common.....	100	30¾	32
Seaboard Railway Preferred.....	100	55½	56
Seaboard Company 1st Pref.....	100	89¼	90½
Seaboard Company 2d Pref.....	100	60½	62
United Railways & Elec. Co.....	50	17½	17½

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	28	28
Commercial & Far. Nat. Bank.....	100	130	130
Com. & Far. Nat. Bk., Blue Cts.....	100	140	140
Drovers & Mech. Nat. Bank.....	100	240	240
First National Bank.....	100	145	145
German Bank.....	100	109	110
Maryland National Bank.....	20	20	24
Merchants' National Bank.....	100	180	185
National Bank of Baltimore.....	100	117	120
National Exchange Bank.....	100	180	180
National Howard Bank.....	10	12	13
National Marine Bank.....	30	37	37
National Mechanics' Bank.....	10	26	26
National Union Bank of Md.....	100	120	120

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
International Trust.....	100	152	155
Maryland Casualty.....	25	55	55
Maryland Trust.....	100	115	117
Mercantile Trust & Deposit.....	50	142	142
Union Trust.....	50	68	64½

Miscellaneous Stocks.	Par.	Bid.	Asked.
Ala. Con. Coal & Iron Pfd.....	100	92½	93½
Consolidated Gas.....	100	86½	86½

Consolidated Cotton Duck.....	50	12	13
Consolidated Cotton Duck Pfd.....	50	34	37
Consolidation Coal.....	100	90	95
G. B. & S. Brewing Co.....	100	8	8

Railroad Bonds.	Par.	Bid.	Asked.
Albany & Northern 5s, 1916.....	93½	94	94
Atlanta & Charlotte 1st 7s, 1907.....	100	90½	90½
Atlant. Coast Line 1st Con. 4s, 1903.....	100	90½	90½
Atlantic Coast Line 4s, Cts., 1903.....	95	94	94
Atlantic Coast Line (Conn.) 5s.....	118	118	118
Carolina Central 4s, 1919.....	97	97½	97½
Charleston & West. Car. 5s, 1916.....	110	110	110
Char., Col. & Aug. 1st 5s, 1910.....	116½	116½	116½
Char., Col. & Aug. 2d 7s, 1910.....	110	110	110
Coal & Iron Railway 5s, 1920.....	105	105	105
Florida Southern 4s, 1910.....	98	98	98
Georgia & Alabama 5s, 1915.....	110½	110½	110½
Georgia & N. C. 1st 5s, 1920.....	111	111½	111½
Georgia South. & Fla. 1st 5s, 1915.....	113½	113½	113½
Maryland & Pennsylvania 4s, 1951.....	94½	94½	94½
Petersburg, Class A 5s, 1926.....	113	113	113
Raleigh & Augusta 1st 6s, 1926.....	126	126	126
Savannah, Fla. & West. 5s, 1934.....	117	120	120
Seaboard Air Line 4s, 1950.....	88	89	89
Seaboard Air Line 5s, 10-year, 1911.....	103½	103½	103½
Seaboard & Roanoke 5s, 1926.....	110	110	110
South Boston 1st 5s, 1911.....	110½	110½	110½
Suffolk & Carolina 5s.....	97	100	100
Virginia Midland 3d 5s, 1916.....	113½	113½	113½
Virginia Midland 5th 5s, 1926.....	112	112	112
Western Maryland new 4s, 1962.....	86	86	86
West Virginia Central 1st 6s, 1911.....	108	108½	108½
Wilmington & Wel. Gold 5s, 1935.....	117	118½	118½

Street Railway Bonds.	Par.	Bid.	Asked.
Anacostia & Potomac 5s, 1919.....	104	108½	108½
Augusta Rwy. & Elec. 5s, 1910.....	106½	106½	106½
Baltimore City Passenger 5s, 1911.....	106	106½	106½
Baltimore Traction 1st 5s, 1929.....	117½	117½	117½
Central Ry. & North (Balt.), 1932.....	114	114	114
Charleston City Railway 5s, 1923.....	106	107	107
Charleston Con. Electric 5s, 1909.....	94½	97	97
City & Suburban 5s (Balt.), 1922.....	113½	113½	113½
Lexington Railway 1st 5s, 1919.....	104½	104½	104½
Macon Rwy. & L. 1st Con. 5s, 1953.....	99½	100	100
Nashville Street Railway 5s.....	103½	106½	106½
Newport News & Old Pt. 5s, 1938.....	96½	97½	97½
Norfolk Railway & Light 5s, 1944.....	100½	100½	100½
Norfolk Street Railway 5s, 1944.....	100½	100½	100½
North Baltimore 5s, 1912.....	119½	119½	119½
United Railways 1st 4s, 1919.....	92½	92½	92½
United Railways Inc. 4s, 1919.....	74½	75	75

Miscellaneous Bonds.	Par.	Bid.	Asked.
Alabama Consol. Coal & Iron 5s.....	92½	93½	93½
Atlanta Gaslight 1st 5s, 1917.....	93	94	94
Consolidated Gas 6s, 1910.....	106½	107	107
Consolidated Gas 5s, 1939.....	111½	112½	112½
Consolidated Gas 4½s, Cts., 1903.....	99½	99½	99½
G. B. & S. Brewing 1st 3-4s.....	60	62½	62½
G. B. & S. Brewing 2d incomes.....	33½	34½	34½
Mt. V. & Woodbury Cot. Duck 5s.....	86½	87½	87½

## SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending April 2.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	96	99
Aiken Mfg. Co. (S. C.).....	86	86
Anderson Cotton Mills (S. C.).....	104	106
Arkwright Mills (S. C.).....	120	123
Augusta Factory (Ga.).....	80	85
Avondale Mills (Ala.).....	98	98
Belt Mills (S. C.).....	108	110
Bibb Mfg. Co. (Ga.).....	122	122
Brandon Mills (S. C.).....	107	111
Cabarrus Cotton Mills (N. C.).....	137	137
Chadwick Mfg. Co. (N. C.) Pfd.....	102	102
Chiquola Mfg. Co. (S. C.).....	90	91
Clifton Mfg. Co. (S. C.).....	123	128
Clifton Mfg. Co. (S. C.) Pfd.....	102	105
Clinton Cotton Mills (S. C.).....	135	146
Columbus Mfg. Co. (Ga.).....	96	96
Courtenay Mfg. Co. (S. C.).....	100	102
Dallas Mfg. Co. (Ala.).....	87	95
Darlington Mfg. Co. (S. C.).....	60	62
Eagle & Phenix Mills (Ga.).....	125	126
Easley Cotton Mills (S. C.).....	125	126
Enoree Mfg. Co. (S. C.).....	77	90
Enoree Mfg. Co. (S. C.) Pfd.....	100	102
Enterprise Mfg. Co. (Ga.).....	86	92
Exposition Cotton Mills (Ga.).....	200	200
Gaffney Mfg. Co. (S. C.).....	85	85
Gainesville Cotton Mills (S. C.).....	59	60
Granby Cot. Mills (S. C.) 1st Pfd.....	65	65
Grantville Mfg. Co. (S. C.).....	160	165
Greenwood Cotton Mills (S. C.).....	95	95
Grendel Mills (S. C.).....	110	116
Henrietta Mills (N. C.).....	200	200
King Mfg. Co., John P. (Ga.).....	97	102
Lancaster Cotton Mills (S. C.).....	103	106
Lancaster Cot. Mills (S. C.) Pfd.....	97	97
Langley Mfg. Co. (S. C.).....	92	95
Laurens Cotton Mills (S. C.).....	160	164
Limestone Mills (S. C.).....	104	104
Lockhart Mills (S. C.).....	100	102
Lockhart Mills (S. C.) Pfd.....	97	101
Louise Mills (N. C.).....	94	94
Louise Mills (N. C.) Pfd.....	102	102
Marlboro Cotton Mills (S. C.).....	70	70
Mayo Mills (N. C.).....	165	185
Mills Mfg. Co. (S. C.).....	106	106
Mills Mfg. Co. (S. C.) Pfd.....	100	100
Monaghan Mills (S. C.).....	104	105
Monarch Cotton Mills (S. C.).....	88½	88½
Newberry Cotton Mills (S. C.).....	110	115
Norris Cotton Mills (S. C.).....	102	104
Odell Mfg. Co. (N. C.).....	88	91
Orangeburg Mfg. Co. (S. C.) 1st Pfd.....	80	97
Orr Cotton Mills (S. C.).....	106	106
Pacolet Mfg. Co. (S. C.).....	173	175
Pacolet Mfg. Co. (S. C.) Pfd.....	102	104
Pelzer Mfg. Co. (S. C.).....	168	175
Piedmont Mfg. Co. (S. C.).....	169	171
Poe Mfg. Co., F. W. (S. C.).....	121	123
Raleigh Cotton Mills (N. C.).....	99	100
Richland Cot. Mills (S. C.) Pfd.....	51	62
Roanoke Mills (N. C.).....	128	128
Saxon Mills (S. C.).....	100	105
Sibley Mfg. Co. (Ga.).....	64	68
Spartan Mills (S. C.).....	80	80
Spartan Mills (S. C.) Pfd.....	140	146
Springstein Mills (S. C.).....	131	142
Trion Mfg. Co. (Ga.).....	160	163
Tucapan Mills (S. C.).....	112	116
Victor Mfg. Co. (S. C.).....	97	99
Warren Mfg. Co. (S. C.) Pfd.....	105	105
Washington Mills (Va.).....	18	26
Washington Mills (Va.) Pfd.....	95	99
Whitney Mfg. Co. (S. C.).....	143	143
Wisnasset Mills (N. C.).....	122	135
Woodruff Cotton Mills (S. C.).....	105	106

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending April 2.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	95	99
Aetna Cotton Mills (S. C.) Pfd.....	70	70
Aiken Mfg. Co. (S. C.).....	85	87

## Going Into the South.

The United Surety Co., which is the latest addition to the bonding companies that have their home offices in Baltimore, has decided to devote especial attention to the development of business in the Southern States. With this idea in view it has qualified and established agencies in the District of Columbia, Georgia, Maryland, Kentucky, Missouri, North Carolina, South Carolina and Tennessee, and for burglary insurance in Texas.

During the short time that this company has been in business it has had very encouraging results, the premium receipts showing splendid connections. Its authorized capital stock is \$500,000, with a surplus of \$250,000, and the field covered includes fidelity, judicial, municipal and contract bonds and all classes of general surety bonds.

In the Northern States the company has qualified and established agencies in Connecticut, Illinois, Massachusetts, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin.

The officers are Olin Bryan, president; Henry G. Penniman, first vice-president; Ernest J. Clark, second vice-president; Walter A. Mason, treasurer; Robert A. Dobbin, Jr., secretary; E. D. Livingston, assistant secretary. The board of directors, the executive committee and the advisory board include a number of well-known and prominent business men in Baltimore, New York and other cities—Messrs. Robert Garrett, Charles W. Field, Francis T. Homer, Ernest J. Clark, Stuart S. Janney, George G. Brown, August Weber, Henry C. Shirley, Walter A.

Mason, Olin Bryan, James W. Gerard, Samuel H. Tattersall, Henry G. Penniman, Harvey L. Cooper, J. Edward Swanstrom, John B. McDonald, Charles M. Schwab, Morton F. Plant, Emanuel Blumenstiel, Maurice Bamberger.

### Bank Reports.

The First National Bank of Port Lavaca, Texas, reports January 29, 1906, loans and discounts, \$68,353; cash in vault and other banks, \$68,265; capital, \$25,000; surplus fund, \$9000; undivided profits, \$4645; circulation, \$5800; individual deposits, \$106,388; total resources, \$150,834. John Clark is president; Willett Wilson, vice-president; W. C. Noble, cashier, and J. H. Bickford, assistant cashier.

The National Exchange Bank of Augusta, Ga., reports January 29, 1906, loans and discounts, \$1,333,782; total cash, \$477,655; due by United States treasurer, \$20,000; capital stock, \$400,000; surplus, \$100,000; undivided profits, \$37,736; circulation, \$400,000; deposits, \$1,078,664; total resources, \$2,299,538. Wm. B. Young is president; Percy E. May, cashier, and E. A. Pendleton, assistant cashier.

### New Corporations.

A new bank is reported organized at Science Hill, Ky.

The Farmers' State Bank of Cement, O. T., has begun business with \$10,000 capital.

It is reported that arrangements are being made to organize a clearing-house for banks at Nashville, Tenn.

The Bank of Kenly, recently organized at Kenly, N. C., has been granted a charter. T. W. Tilghman is president.

The State Bank of Gracemont, O. T., capital \$10,000, has been authorized to begin business with W. T. Clark as president.

The State Exchange Bank of Custer, O. T., has been granted a commission. O. B. Key is president and John O. Willis cashier.

A building and loan association with \$50,000 capital is reported organized at Tusculum, Ala. E. B. Almon applied for the charter.

The Coleman Abstract Co. of Coleman, Texas, capital \$600, has been incorporated by F. L. Snodgrass, D. O. Cameron and J. A. B. Miller.

The conversion of the Farmers' State Bank of Newkirk, O. T., into the Farmers' National Bank of Newkirk, capital \$25,000, has been approved.

The People's Bank of Branchville, S. C., capital \$25,000, has been incorporated by R. F. Dukes, P. C. Dukes, A. N. Smoak and W. M. Warren.

The Bank of Hawk Point at Hawk Point, Mo., capital \$10,000, has been incorporated by J. A. Elliott, James C. Minely, E. A. Howell and others.

The Caddo Valley Bank of Black Springs, Ark., capital \$10,000, has begun business with Dr. George Cox of Mt. Ida president and L. L. Beavers cashier.

The Citizens' State Bank of Waurika, O. T., has been authorized to begin business with \$10,000 capital. A. L. Walker is president and D. W. Cummins cashier.

The Highland Savings Bank has been incorporated at Towson, Md., by Thomas J. Kurlle, Bernard Rethman, Adolph G. Kelm, Joseph Kurlle and Geo. A. Finch.

The Commercial Fire Insurance Co. of Little Rock, Ark., capital \$100,000, has been incorporated by Charles P. Harnwell, M. K. Watson, I. I. Lowden and J. C. Evans.

The First National Bank of North Fork, W. Va., capital \$50,000, has made application for a charter. The incorporators are Lester G. Toney, William H. Clements, C.

S. Angel, W. A. Phillips and L. Kaufman. The Waxhaw Banking & Trust Co. of Waxhaw, N. C., capital \$17,550, has begun business with J. L. Rodman, president; J. E. Heath, vice-president, and W. C. Wolfe, cashier.

The Fairfax National Bank of Fairfax, O. T., capital \$25,000, has been approved. The organizers are D. C. Maher, John L. Bird, Fred Drummond, Prentiss Price and G. M. Carpenter.

The Washington Mechanics' Savings Bank of Alexandria, Va., capital \$20,000, has organized with Ezra Gould, president; E. S. Wolf, secretary and treasurer, Washington, D. C.

The County National Bank of Lincoln, N. C., has been approved; capital \$40,000. The organizers are W. E. Grigg, B. F. Grigg, R. S. Remhardt, A. Costner, J. M. Rhodes and others.

The Farmers' State Bank of Capron, O. T., capital \$10,000, has been authorized to begin business with W. W. Morris, president; H. E. Mason, vice-president, and A. G. Crews, cashier.

The Camden National Bank of Camden, Ala., capital \$25,000, has been approved. The organizers are E. W. Berry, R. J. Goode, J. N. Miller, B. M. Miller, D. J. Spira and L. L. Pritchett.

The People's Savings Association of Newport News, Va., capital \$50,000, has organized with T. L. Farmer, president; John T. Gregory, secretary; E. S. Blanton, treasurer, all of Newport News, Va.

Application for a charter for the Southern Bank & Trust Co. of Natchez, Miss., capital \$150,000, is to be made by George M. D. Kelly, James Henry Beard, Bryant L. Guice, Elliott D. Coleman and others.

The Germania Life Insurance Co. of Charleston, S. C., capital \$10,000, has been granted a charter. A. J. W. Gorse is president; Henry Nolte, vice-president, and J. L. Stoppelbein, secretary and treasurer.

The First National Bank of Hamlin, Texas, has been approved; capital \$25,000. The organizers are R. V. Colbert, Stamford, Texas; H. S. Abbott, R. L. Penick, J. F. O'Pool, J. C. Bryant and A. J. Martin.

The Farmers and Merchants' Bank of Bumpus Mills, Tenn., capital \$10,000, will, it is said, begin business about April 1 with W. B. Pugh, president; F. P. Clark, vice-president, and a Mr. Holland of Cadiz, Ky., cashier.

It is reported that a new bank to be known as the First National Bank of Portsmouth, capital \$100,000, is being organized at Portsmouth, Va. Messrs. Smelz Bros. of Hampton are said to be back of the enterprise.

The Bank of Inman at Inman, S. C., capital \$10,000, has organized with the following directors: J. H. Ballenger, J. A. Chapman, Dr. J. B. Gibson, J. H. Gosnell and Arch B. Calvert. Arch B. Calvert was elected president.

A report from North Carolina states that J. B. Mason, cashier of the Citizens' National Bank of Durham, and W. A. Murray, vice-president of the Farmers' Bank of Mebane, are reported to be organizing a bank at Yanceyville.

The Lipan State Bank of Lipan, Texas, capital \$25,000, has been granted a charter. The directors are D. D. Cogdell, J. N. Nutt, Granbury; J. C. Duke, E. O. Tension, Dallas; W. J. Aiken, Lipan, and Charles Dillingham, Houston.

The Real Estate Title & Trust Co. of Rome, Ga., capital \$100,000, has made application for a charter. The incorporators are C. B. Goetchius, J. P. Bowie, T. W. Lipscomb, John M. Graham, C. B. Caperton and Wright Willingham.

The People's Building and Loan Association has begun business at Wilmington, N. C. The stockholders are W. F. Robert-

son, Robert Scott, A. H. Harriss, D. R. Foster, H. E. Walton, Geo. H. Heyer, E. P. H. Strunck and J. W. H. Fuchs.

The International Building Association of Washington, D. C., has been incorporated with \$2,000,000 capital by Maximo Beers of New York city, E. W. McCormick, R. S. Donaldson, B. E. B. Kertschmann and B. H. Long of Washington.

The American Central Mortgage & Deposit Co. of Oklahoma City, O. T., capital \$200,000, has been incorporated by A. R. and F. Neuman of Wichita, Ralph M. Jacoby of New York, S. T. Bisbee of Oklahoma City and L. Reinstein of Dillon, O. T.

It is reported that arrangements have been made to combine the City Bank & Trust Co. and the Merchants' National Bank, both of New Orleans, La., under the title of the City Bank & Trust Co., with capital \$400,000. M. J. Sanders will be president.

The Citizens' Trust Co. of Atlanta, Ga., capital \$100,000, has published its charter. The incorporators are C. F. Fulton, Hugo I. Frank, John W. Parker, William Denhardt, Charles Inglesby, Francis M. Oliver, R. J. Davant, John G. Butler, Jr., and James R. Cain, all residents of Savannah.

The First National Bank of Teague, Texas, which was recently approved with \$50,000 capital, has elected W. E. Richards, president; M. Sweeney, vice-president; E. B. St. Clair, cashier, with Gordon King, T. J. Hall, W. L. Lott, M. Sweeney, Joseph Naussbaul, W. Malone and W. E. Richards, directors.

The Bank of Girard at Girard, Ga., capital \$25,000, has made application for a charter. The incorporators are T. Z. Daniel and W. R. Turner, Millen, Ga.; W. R. Buxton, Needham A. Buxton, J. C. Brigham, Chas. Brigham, Girard, Ga.; A. S. Anderson, W. J. Walker, H. S. White and S. W. Mims, Sylvania, Ga.

The Ashville Savings Bank of Ashville, Ala., capital \$25,000, has organized with the following officers: James L. Herring, president; Drs. John B. Bass and Wm. A. Beason, vice-presidents, and A. K. Senour, cashier; directors, John W. Inzer, Jas. A. Hodges, Beal M. Teague, James A. Embry and B. S. Hodges.

It is reported that a building and loan association with \$100,000 capital is to be established at Beaumont, Texas, among those interested being Guy W. Junker, B. R. Norvell, A. L. Williams, S. G. Burnett, Dr. W. W. Cunningham, T. H. Langham, Leon R. Levy, R. M. Mothner, Capt. William Wiess, E. C. Ogden, James Wellman and others.

The Citizens' Loan & Realty Co. of Durant, I. T., capital \$100,000, has organized by electing S. A. Whale, president; Dr. G. M. Rushing and D. Head, vice-presidents; Hugh Cox, secretary, and Ed. F. Rines, treasurer; directors, S. A. Whale, Hugh Cox, W. E. Utterback, J. C. Haden, E. F. Rines, William Bondies, W. C. Gower, D. Head and G. M. Rushing.

The Citizens' Savings Bank of Washington, D. C., has been organized with Joseph Auerbach, president; James M. Sample, treasurer, and Rignald W. Beall, secretary; directors, Judge Charles S. Bundy, John Quinn, Joseph Auerbach, William W. Bowie, James A. Sample, William E. Abbott, Oscar J. Ricketts, Cincinnati; John O. Johnson and Rignald W. Beall.

Three banks with \$10,000 capital each are reported chartered in Oklahoma Territory by W. O. Horr, formerly of Garden City, Kan., but now of Rhea. The banks are located at Rhea, Texmo and Crawford. Field Sherman will be cashier of the Crawford County Exchange Bank, C. A. Horr cashier of the Texmo Cotton Exchange Bank, and J. W. Porter cashier of the Rhea Cotton Exchange Bank.

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The Washington and Lafayette Building Association of Baltimore, Md., has been incorporated with \$200,000 capital by William F. Ackler, Edward I. Fanning, Isaac Frank, Bernard J. Meehan, George C. Metzger and William T. Riley. The directors for the first year are the incorporators and Messrs. Ernest L. Cook, Louis Heying, Thomas B. Lewis, John D. Roney, William Reeder and Philip G. Schwab.

[For Additional Financial News, See Pages 50 and 51.]



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